Inland Counties Emergency Medical Agency
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Serving San Bernardino, Inyo, and Mono Counties
Tom Lynch, EMS Administrator
Reza Vaezazizi, MD, Medical Director

DATE: May 22, 2019

TO: EMS Providers - ALS, LALS, BLS, EMS Aircraft
Hospital CEOs, ED Directors, Nurse Managers and PLNs
EMS Training Institutions and Continuing Education Providers
Inyo, Mono and San Bernardino County EMCC Members
Medical Advisory Committee (MAC) Members
Systems Advisory Committee (SAC) Members

FROM: Tom Lynch, EMS Administrator; Reza Vaezazizi, MD, Medical Director

SUBJECT: IMPLEMENTATION OF POLICIES/PROTOCOLS EFFECTIVE AUGUST 15, 2019

The revised policies/protocols listed below will be effective August 15, 2019.

ICEMA Reference Number and Name

6060	Specialty and Optional Scope Program Approval
6070	Cardiovascular ST Elevation Myocardial Infarction Receiving Centers Designation Policy (San Bernardino County Only)
6100	Neurovascular Stroke Receiving Centers Designation Policy (San Bernardino County Only)
6110	Tactical Medicine for Special Operations
7010	BLS/LALS/ALS Standard Drug and Equipment List
7020	EMS Aircraft Standard Drug and Equipment List
7040	Medication - Standard Orders
8060	Request for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)
8120	Continuation of Care (San Bernardino County Only)
8130	Destination Policy
9040	Reporting Incidents of Suspected Abuse Policy
11060	Suspected Acute Myocardial Infarction (AMI)
11070	Cardiac Arrest - Adult
11110	Stroke Treatment - Adult
11140	Pain Management - Adult
12010	Determination of Death On Scene
14040	Cardiac Arrest - Pediatric
14090	Newborn Care

Please insert and replace the attached policies/protocols and the Table of Contents in the EMS Policy, Procedure and Protocol Manual with the updated documents and ensure every station or facility has a reference copy. The ICEMA policies and protocols can also be found on ICEMA's website at www.ICEMA.net under the EMS Policy, Procedure and Protocol Manual section.

If you have any questions, please contact Suzee Kolodzik, EMS Specialist, at (909) 388-5820 or via e-mail at susan.kolodzik@cao.sbcounty.gov.

TL/RV/SK/jlm

Enclosures

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POLICIES/PROTOCOLS CHANGES EFFECTIVE AUGUST 15, 2019

Reference #	Name	Changes
DELETIONS		
NEW		
1000 ACCREDITATION AND CERTIFICATION		
None		
2000 DATA COLLECTION		
None		
3000 EDUCATION		
None		
4000 QUALITY IMPROVEMENT		
None		
5000 MISCELLANEOUS SYSTEM POLICIES		
None		
6000 SPECIALTY PROGRAM/ PROVIDER POLICIES		
6060	Specialty and Optional Scope Program Approval	Addition of ITD as a specialty program.
6070	Cardiovascular ST Elevation Myocardial Infarction Receiving Centers Designation Policy (San Bernardino County Only)	Name change to ST Elevation Myocardial Infarction Critical Care System Designation (San Bernardino County Only) and update for compliance with California Code of Regulations, Title 22, Division 9, Chapter 7.1.
6100	Neurovascular Stroke Receiving Centers Designation Policy (San Bernardino County Only)	Name change to Stroke Critical Care System Designation (San Bernardino County Only) and update for compliance with California Code of Regulations, Title 22, Division 9, Chapter 7.2.
6110	Tactical Medicine for Special Operations	Update to clarify requirements for Tactical Medicine for Special Operations.
7000 STANDARD DRUG & EQUIPMENT LISTS		
7010	BLS/LALS/ALS Standard Drug and Equipment List	Increased amount for Ketamine range allowance.
7020	EMS Aircraft Standard Drug and Equipment List	Increased amount for Ketamine range allowance.

POLICIES/PROTOCOLS CHANGES EFFECTIVE AUGUST 15, 2019

7040	Medication - Standard Orders	Clarification on Push Dose Epinephrine for pediatrics. Removal of Lidocaine use for King airway and NG/OG insertion with suspected ICP for adults and NG/OG insertion for pediatrics for suspected ICP.
8000 TRANSPORT/TRANSFERS AND DESTINATION POLICIES		
8060	Request for Hospital Diversion Policy (*San Bernardino County Only)*	Name change to Request for Ambulance Redirection and Hospital Diversion. (San Bernardino County Only)
8120	Continuation of Care (*San Bernardino County Only)*	Clarification on continuation of care from one specialty care center to another specialty care center.
8130	Destination Policy	Policy update for base hospital contact and specialty care destination.
9000 GENERAL PATIENT CARE POLICIES		
9040	Reporting Incidents of Suspected Abuse Policy	Update of address and fax number update for San Bernardino County "Report of suspected Dependent Adult/Elder Abuse" form submission.
10000 SKILLS		
None		
11000 ADULT EMERGENCIES		
11060	Suspected Acute Myocardial Infarction (AMI)	Alignment with destination policy updates.
11070	Cardiac Arrest - Adult	Addition of High Performance CPR. Clarification of termination of resuscitation efforts and stable ROSC patients. Delaying advanced airway if BLS airway is managed effectively. Removal of King Airway.
11110	Stroke Treatment - Adult	Addition of LAMS severity score.
11140	Pain Management - Adult	Addition of baseline mentation.
12000 END OF LIFE CARE		
12010	Determination of Death On Scene	Clarification to policy.
13000 ENVIRONMENTAL EMERGENCIES		
None		
14000 PEDIATRIC EMERGENCIES		
14040	Cardiac Arrest - Pediatric	Addition of High Performance CPR. Clarification of stable ROSC patients.
14090	Newborn Care	Update for newborn heart rate.

POLICIES/PROTOCOLS CHANGES EFFECTIVE AUGUST 15, 2019

15000 TRAUMA		
None		

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SPECIALTY AND OPTIONAL SCOPE PROGRAM APPROVAL

I. PURPOSE

To provide guidelines for the application and renewal of advanced life support (ALS) or basic life support (BLS) specialty or optional scope of practice programs.

II. DEFINITIONS

Public Safety AED Service Provider: A specialty program for public safety personnel. (See ICEMA Reference #16060 - Public Safety AED Service Provider.)

Emergency Medical Dispatch (EMD) Program: The reception, evaluation, processing and provision of dispatch life support; management of requests for emergency medical assistance; ongoing evaluation and improvement of the emergency medical dispatch process. (See ICEMA Reference #6120 - Emergency Medical Dispatch Center Requirements.)

Mobile Medic Specialty Program: A specialty program that utilizes boats, bicycles, motorcycles, golf carts and/or powered all-terrain vehicles or for ALS or BLS response designed to deliver EMT, AEMT, and/or EMT-P to the scene of injury and/or transport a patient from the scene of injury to other awaiting EMS units.

Optional Scope Program: Any EMT/AEMT/EMT-P program that may require approval from the ICEMA Medical Director to function outside of the basic scope of practice that is not initiated region-wide.

Specialty Program: Any program that may require approval from the ICEMA Medical Director to function due to regulations or any variance from standard ICEMA policies or protocols either in equipment or procedures.

Tactical Medicine for Special Operations: A specialty program that meets all the prerequisites established by POST/EMSA for the delivery of emergency medical care during law enforcement special operations. (See ICEMA Reference #6110 - Tactical Medicine for Special Operations.)

III. POLICY

- All providers interested in providing ALS specialty or EMT optional scope programs shall submit an application that will undergo a review process to determine eligibility.

- All specialty programs must submit a new application and be approved every two (2) years.

- All local optional scope programs must submit a new application and be approved at least every three (3) years or concurrently with State approval of the ICEMA Local Optional Scope of Practice whichever is sooner.

- An electronic patient care report (ePCR) must be initiated whenever contact is made with a patient. Patients refusing care or declining further care after treatment must sign a refusal of care and/or Against Medical Advice form.

- If paper downtime forms are utilized, EMS providers are required to submit an approved ePCR by the end of shift or within 24 hours of the close of the event (whichever is less).

- Radio communication failure protocols will not be used. Prior to base contact protocols will be followed. If further treatment is needed, radio contact with the base hospital should be established as soon as possible.

- All ePCRS utilizing a specialty program will be reviewed by the EMS provider as part of its Continuous Quality Improvement program. Review or submission of additional criteria may be required.

- EMS field personnel must accompany the patient to the hospital if utilizing optional scope medications or devices that the transporting EMS field personnel are not authorized to use.

IV. PROCEDURE FOR SPECIALTY AND OPTIONAL SCOPE PROGRAM APPROVAL

- Submit an original application to ICEMA indicating the type of program. The Specialty and Optional Scope Program Approval Application is available on the ICEMA website at ICEMA.net.

- Submit a copy of the proposed or renewal program which shall include:

  - A statement demonstrating a need for the program.

  - A description of the geographic area within which the specialty program will be utilized.

  - A detailed description of the operation of the program, such as special events, 24/7 and how the program will be implemented.

  - A description of how the program will interface with the EMS system and 9-1-1.

- A detailed description of the training program. For optional scope programs, include provisions for written test and demonstration of skills competencies.

- A detailed list of employees participating in this program. If there are changes in employees, ICEMA must be notified in writing within 10 days.

- A detailed description of any deviations from the Standard Drug and Equipment List, how equipment and drugs will be stored and/or transported and a program for maintenance of the equipment.

- A process for the reporting of any deviations or adverse events.

- A quality improvement plan or an amendment to the EMS providers' Quality Improvement Plan that describes the quality improvement process for the specialty program. The plan must comply with all provisions of the ICEMA Quality Improvement Plan and include provisions for 100% review of all patient care reports in which the specialty or optional scope program was attempted or utilized.

- ICEMA may require the collection and submission of additional criteria as necessary.

- Additional procedures for Mobile Medic Specialty Programs:

  - A statement indicating compliance with Department of Motor Vehicles rules for personal safety equipment and/or vehicle registration if applicable.

  - A list of type of vehicles utilized (bicycles, motorcycles, ATV).

  - Type of interim patient care report utilized and process for transfer of patient care documents in the field.

  - Type of communication devices utilized and the interface with ALS provider and transport.

- Additional procedures for EMT King Airway Optional Skills Program:

  - Authorization for EMTs to practice optional skills is limited to those whose certificate is active and who are employed by an ICEMA authorized EMS provider.

  - Training in the use of perilaryngeal airway adjuncts must include not less than five (5) hours with skills competency demonstration every one (1) year for certified EMTs in approved optional skills programs.

- Comply with state regulations for EMT optional skills training and demonstration of competency.

- Additional procedures for Impedance Threshold Device (ITD) Specialty Programs:

  - Prior to deployment and utilization of ITDs, providers must demonstrate high performance compression fraction of at least 80% without the use of an automatic compression device either through retrospective or concurrent audits for six (6) months.

  - ITD must be used in conjunction with high performance CPR and may be used with automatic compression devices.

  - Submit initial/renewal course outline for approval to include:

    - Indications for use and when to remove the device for both basic and advanced airways.
    - Use of two-person bag-valve-mask ventilation when used in the absence of an advanced airway to ensure adequate seal to maintain the intended effect of the device.
    - Use in conjunction with high performance CPR, keeping compression rates between 100 - 120 per minute.

- Additional procedures for Local Optional Scope programs:

  - Authorization for EMTs or EMT-Ps to practice optional skills is limited to those whose certificate or license is active and who are employed by an ICEMA authorized EMS provider.

  - Initial training to include not less than five (5) hours with skills competency demonstration once every one (1) year.

  - Comply with State regulations for optional skills training and demonstration of competency.

V. DRUG AND EQUIPMENT LISTS

- Equipment and supplies carried and utilized by specialty program personnel shall be consistent and compatible with the drugs and equipment normally carried by ALS units.

- Equipment and supplies shall be based on the appropriate level of personnel utilized for the particular event.

VI. REFERENCES

Number	Name
6110	Tactical Medicine for Special Operations
6120	Emergency Medical Dispatch Center Requirements
16060	Public Safety AED Service Provider

ST ELEVATION MYOCARDIAL INFARCTION CRITICAL CARE SYSTEM DESIGNATION *(San Bernardino County Only)*

I. PURPOSE

To establish standards for the designation of an acute care hospital as a ST Elevation Myocardial Infarction (STEMI) Receiving Center.

II. POLICY

Hospital requirements for Inland Counties Emergency Medical Agency (ICEMA) STEMI Receiving Center designation:

- Must be a full service general acute care hospital approved by ICEMA as a 9-1-1 receiving hospital.
- Must have a licensure as a Cardiac Catheterization Laboratory (Cath Lab).
- Must be accredited by the American College of Cardiology (ACC) as a Chest Pain Center with Primary Percutaneous Coronary Intervention (PCI).
- Must have a Cardiovascular surgical services permit.
- Must be in compliance with all requirements listed in the California Code of Regulations, Title 22, Division 9, Chapter 7.1, STEMI Critical Care System Regulations.

III. STAFFING REQUIREMENTS

The hospital will have the following positions filled prior to becoming a STEMI Receiving Center:

- <u>Medical Directors</u>

  The hospital shall designate two (2) physicians as co-directors who are responsible for the medical oversight and ongoing performance of the STEMI Receiving Center program. One (1) physician shall be a board certified interventional cardiologist with active Percutaneous Coronary Intervention (PCI) privileges. The co-director shall be a board certified emergency medicine physician with active privileges to practice in the emergency department.

- STEMI Program Manager

  The hospital shall designate a qualified STEMI Program Manager. This individual is responsible for monitoring and evaluating the care of STEMI patients, the coordination of performance improvement and patient safety programs for the STEMI critical care system in conjunction with the STEMI medical director. The STEMI Program Manager must be trained or certified in critical care nursing or have at least two (2) years dedicated STEMI patient management experience.

- On-Call Physician Consultants and Staff

  On-call physicians consultants and staff must be promptly available within 30 minutes from notification. A daily roster must include the following on-call physician consultants and staff:

  - Interventional Cardiologist with privileges in PCI procedures.
  - Cardiovascular Surgeon with privileges in Coronary Artery Bypass Grafting.
  - Cath Laboratory Team.
  - Intra-aortic balloon pump nurse or technologist.

- Registrar

  To ensure accurate and timely data submission, hospitals must have a dedicated registrar to submit required data elements.

  - Depending on the volume this position may be shared between specialty cares.
  - Failure to submit data as outlined above, may result in probation, suspension, fines or rescission of STEMI Receiving Center Designation.

IV. INTERNAL STEMI RECEIVING CENTER POLICIES

The STEMI Receiving Center must have:

- The capability to provide STEMI patient care 24 hours per day, seven (7) days per week.
- A single call alert/communication system for notification of incoming STEMI patients, available 24 hours per day, seven (7) days per week (i.e., in-house paging system).

- A process for the treatment and triage of simultaneously arriving STEMI patients.

- A fibrinolytic therapy protocol to be used only in unforeseen circumstances when PCI of a STEMI patient is not possible.

- Prompt acceptance of STEMI patients from STEMI Referral Hospitals that do not have PCI capability. To avoid prolonged door to intervention time the STEMI base hospitals are allowed to facilitate redirection of STEMI patients to nearby STEMI receiving centers Physician to physician contact must be made when redirecting patients.

- Acknowledgement that STEMI patients may **only** be diverted during the times of Internal Disaster in accordance to ICEMA Reference #8060 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).

V. DATA COLLECTION

All required data elements shall be collected and entered in an ICEMA approved STEMI registry on a regular basis and submitted to ICEMA for review. All hospitals including STEMI receiving centers must participate in Cardiac Arrest Registry to Enhance Survival (CARES).

VI. CONTINUOUS QUALITY IMPROVEMENT (CQI) PROGRAM

STEMI Receiving Centers shall develop an on-going CQI program which monitors all aspect of treatment and management of suspected STEMI patients and identify areas needing improvement. The program must, at a minimum, monitor the following parameters:

- Morbidity and mortality related to procedural complications.

- Detail review of cases requiring emergent rescue Coronary Artery Bypass Graph (CABG).

- Tracking of door-to-dilation time and adherence to minimum performance standards set by ICEMA policy, contractual agreement, California Regulations, and the ACC.

- Detailed review of cases requiring redirection of EMS STEMI patients to other STEMI Receiving Centers as a result of over capacity and prolonged delay of door-to-intervention time.

- Active participation in each ICEMA STEMI CQI Committee and STEMI regional peer review process. This will include a review of selected medical records as determined by CQI indicators and presentation of details to peer review committee for adjudication.

- Provide Continuing Education (CE) opportunities twice per year for emergency medical services (EMS) field personnel in areas of 12-lead ECG acquisition and interpretation, as well as assessment and management of STEMI patients.

- Programs in place to promote public education efforts specific to cardiac care.

VII. PERFORMANCE STANDARD

Designated STEMI Receiving Centers must comply with the California Code of Regulations, Title 22, Division 9, Chapter 7.1, STEMI Critical Care System, ICEMA policies, and the ACC performance measures, that exist and may change in the future.

VIII. DESIGNATION

- The STEMI Receiving Center applicant shall be designated after satisfactory review of written documentation, a potential site survey by ICEMA, and completion of a board approved agreement between the STEMI Receiving Center and ICEMA.

- Initial designation as a STEMI Receiving Center shall be in accordance with terms outlined in the agreement.

- Failure to comply with the approved agreement, or ICEMA policy may result in probation, suspension, fines or rescission of STEMI Receiving Center designation.

IX. REFERENCES

Number	Name
8060	Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)
8120	Continuation of Care (San Bernardino County Only)

STROKE CRITICAL CARE SYSTEM DESIGNATION

(San Bernardino County Only)

I. PURPOSE

To establish standards for the designation of an acute care hospital as a Stroke Receiving Center.

II. POLICY

Hospital requirements for Inland Counties Emergency Medical Agency (ICEMA) Stroke Receiving Center designation:

- Must be a full service general acute care hospital approved by ICEMA as a 9-1-1 receiving hospital.

- Must have certification as an Acute Ready, Primary, Thrombectomy Capable, or Comprehensive Stroke Center by The Joint Commission (TJC), Healthcare Facilities Accreditation Program (HFAP), or Det Norske Veritas (DNV) and proof of re-certification every two (2) years.

- Must be in compliance with all requirements listed in the California Code of Regulations, Title 22, Division 9, Chapter 7.2, Stroke Critical Care System for the requested level of designation.

III. STAFFING REQUIREMENTS

The hospital will have the following positions filled for all levels of designation prior to becoming a Stroke Receiving Center.

- <u>Medical Directors</u>

  The hospital shall designate two (2) physicians with hospital privileges as co-directors who are responsible for the medical oversight and ongoing performance of the Stroke Receiving Center program. One (1) physician shall be board certified or board eligible by the American Board of Medical Specialties or American Osteopathic Association, neurology or neurosurgery board. The co-director shall be a board certified or board eligible emergency medicine physician.

- <u>Stroke Program Manager</u>

  The hospital shall designate a qualified Stroke Program Manager. This individual is responsible for monitoring and evaluating the care of Stroke patients, the coordination of performance improvement and patient safety

programs for the Stroke critical care system in conjunction with the Stroke medical director. The Stroke Program Manager must be trained or certified in critical care nursing or have at least two (2) years dedicated to Stroke patient management experience.

- On-Call Physicians Specialists/Consultants

  On-Call physicians consultants and staff must be promptly available within 30 minutes from notification. A daily roster must include the following on-call physician consultants and staff:

  - Radiologist experienced in neuroradiologic interpretations.
  - On-call Neurologist and /or tele-neurology services available twenty-four (24) hours per day; seven (7) days per week.

- Registrar

  To ensure accurate and timely data submission, hospitals must have a dedicated registrar to submit required data elements.

  - Depending on the volume, this position may be shared between specialty cares.
  - Failure to submit data as outline above, may result in probation, suspension, fines or rescission of Stroke Receiving Center Designation.

IV. INTERNAL STROKE RECEIVING CENTER POLICIES

All levels of designation must have internal policies for the following:

- Stroke Team alert response policy upon EMS notification of a "Stroke Alert".
- Rapid assessment of stroke patient by Emergency and Neurology Teams.
- Prioritization of ancillary services including laboratory and pharmacy with notification of "Stroke Alert".
- Arrangement for priority bed availability in Acute Stroke Unit or Intensive Care Unit (ICU) for "Stroke Alert" patients.
- If neurosurgical services are not available in-house, the Stroke Receiving Center must have a rapid transfer agreement in place with a hospital that provides this service. Stroke Receiving Centers must promptly accept rapid transfer requests. Additionally, the Stroke Receiving Center must have a rapid

transport agreement in place with an ICEMA approved EMS transport provider for that Exclusive Operation Area (EOA).

- Acknowledgement that stroke patients may **only** be diverted during the times of Internal Disaster in accordance to ICEMA Reference #8060 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).

- Emergent thrombolytic and tele-neurology protocol to be used by Neurology, Emergency, Pharmacy and Critical Care Teams.

- An alert/communication system for notification of incoming stroke patients, available 24 hours per day, seven (7) days per week (i.e., in-house paging system).

V. DATA COLLECTION

Designated Stroke Receiving Centers shall report all required data as determined by ICEMA and the Stroke Committee.

VI. CONTINUOUS QUALITY IMPROVEMENT (CQI) PROGRAM

Stroke Receiving Centers shall develop an on-going CQI program which monitors all aspects of treatment and management of stroke patients and identify areas needing improvement. The program must, at a minimum, monitor the following:

- Morbidity and mortality related to procedural complications.

- Review of all transfers.

- Tracking door-to-intervention times and adherence to minimum performance standards.

- Active participation in ICEMA Stroke CQI Committee and Stroke regional peer review process. This will include a review of selected medical records as determined by CQI indicators and presentation of details to peer review committee for adjudication.

- Provide Continuing Education (CE) opportunities twice per year for referral hospitals and EMS field personnel in areas of pathophysiology, assessment, triage and management for stroke patients and report annually to ICEMA.

- Lead public stroke education and illness prevention efforts and report annually to ICEMA.

VII. PERFORMANCE STANDARDS

Designated Stroke Receiving Centers must comply with the California Code of Regulations, Title 22, Division 9, Chapter 7.2, Stroke Critical Care System, ICEMA policies, and the Performance Measures set forth by the accrediting agencies identified in Section II, that exist and may change in the future.

VIII. DESIGNATION LEVELS

- **Acute Stroke Ready Hospital**: A hospital able to provide the minimum level of critical care services for stroke patients in the emergency department, and are paired with one or more hospitals with a higher level of stroke services.

- **Primary Stroke Center:** A hospital that treats acute stroke patients, and identifies patients who may benefit from transfer to a higher level of care when clinically warranted.

- **Thrombectomy-Capable Stroke Center:** A primary stroke center with the availability to perform mechanical thrombectomy for the ischemic stroke patient when clinically warranted.

- **Comprehensive Stroke Center:** A hospital with specific abilities to receive diagnose and treat all stroke cases and provide the highest level of care for stroke patients.

Acute Stroke Ready Hospitals

To be considered for Acute Stroke Ready hospital designation, multiple variables will be taken into consideration and will be determined by the ICEMA Medical Director:

- What are the current needs of the community?

- How will this impact the overall care in the system?

- What is the location of the hospital, is there a prolonged distance to a primary thrombectomy or comprehensive stroke center?

The hospital must meet the following minimum criteria:

- Written transfer agreements.

- Written policies and procedures for emergent stroke services to include written protocols and standardized orders.

- A data-driven, continuous quality improvement process.

- Neuro imaging services (CT or MRI) with interpretation of imaging available 24 hours a day, seven (7) days a week, and 365 days a year.

- Laboratory services to include blood testing, electrocardiography, and x-ray services 24 hours a day, seven (7) days a week and 365 days a year.

- Provide IV thrombolytic treatment.

- A clinical Stroke Team available to see patient (in person or by tele-health) within 20 minutes of arrival to ED.

Primary Stroke Centers

- Stroke diagnosis and treatment capacity 24 hours a day, seven (7) days a week.

- A clinical Stroke Team available to see in person or via telehealth, a patient identified as a potential stroke patient within 15 minutes following patient's arrival.

- Neuro imaging services capability that is available 24 hours a day, seven (7) days a week.

- Two (2) CT scanners and one (1) MRI scanner.

- Neuro-imaging initiated within 25 minutes following arrival to ED.

- Laboratory services that are available 24 hours a day, seven (7) days a week.

Thrombectomy Capable Centers (in addition to Primary Stroke Center Requirements)

- The ability to perform mechanical thrombectomy for the treatment of ischemic stroke 24 hours a day, seven (7) days a week.

- Neuro interventionalist.

- Neuro radiologist.

- The ability to perform advanced imaging 24 hours a day, seven (7) days a week.

Comprehensive Centers (in addition to Primary and Thrombectomy Center Requirements)

- Neuro-endovascular diagnostic and therapeutic procedures available 24 hours a day, seven (7) days a week.
- Advanced imaging available 24 hours a day, seven (7) days a week.
- A stroke patient research program.
- A neurosurgical team capable of assessing and treating complex stroke and stroke-like syndromes.
- A written call schedule for attending neurointerventionalist, neurologist, or neurosurgeon providing availability 24 hours a day, seven (7) days a week.

IX. DESIGNATION

ICEMA designation as an Acute Stroke Ready Hospital, Primary, Thrombectomy Capable, or Comprehensive Stroke Center will be determined based on need and volume in the community. Designation will not be determined by current accreditation only; however, Stroke Receiving Centers must be accredited at least at an equivalent designation level being requested.

- The Stroke Receiving Center applicant shall be designated by ICEMA after satisfactory review of written documentation, a potential site survey and completion of an agreement between the hospital and ICEMA.
- Documentation of current certification as an Acute Ready Hospital, Primary Stroke Center Thrombectomy Capable Stroke Center or Comprehensive Stroke Center by TJC, HFAP or DNV.
- Initial designation as a Primary, Thrombectomy, Capable or Comprehensive Stoke Center shall be in accordance with terms outlined in the agreement.
- Failure to comply with the approved agreement, or ICEMA policy may result in probation, suspension, fines or rescission of the Stroke Receiving Center designation.

X. REFERENCE

Number	**Name**
8060	Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)

TACTICAL MEDICINE FOR SPECIAL OPERATIONS

I. PURPOSE

To provide medical oversight and continuous quality improvement and establish policies and procedures for Tactical Medicine for Special Operations first responders who respond as an integral part of a Special Weapons and Tactics (SWAT) operations.

II. POLICY

- Tactical Medicine for Special Operations shall be developed and utilized in accordance with the "California POST/EMSA Tactical Medicine Operational Programs and Standardized Training Recommendations" document that can be located on the EMSA website at emsa.ca.gov.

- Tactical Medicine for Special Operations and Tactical Medics/Tactical TEMS Specialists (Emergency Medical Technicians (EMTs), Advanced EMTs (AEMTs), Paramedics (EMT-Ps), and Registered Nurses (RNs)) shall be integrated into the local EMS system, in coordination with ICEMA, the local Emergency Medical Services (EMS) Agency (POST, 2010).

- Tactical Medicine for Special Operations shall be reviewed and approved by ICEMA.

- Administration of this policy applies to EMTs, AEMTs, EMT-Ps, and RNs providing medical services within an established EMS Agency and as part of a recognized Tactical Medicine Program.

  - The medical scope of practice for EMTs, AEMTs and EMT-Ps is consistent with Title 22, Division 9 and all ICEMA protocols.

- Tactical Medicine for Special Operations should designate a Tactical Medicine Program Director as defined within POST and EMSA guidelines.

- Tactical Medicine for Special Operations should designate a physician as a Tactical Medicine Medial Director "to provide medical direction, continuous quality improvement, medical oversight, and act as a resource for medical contingency planning" (POST, 2010).

- Tactical Medicine for Special Operations should have components pertaining to planning, medical oversight, quality improvement and training as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.1-7) and *California Tactical Casualty Care Training Guidelines* (EMSA #370, June 2017).

- Tactical Medicine for Special Operations should include tactical medical personnel in mission planning and risk assessment to ensure appropriate assets are available for the identified mission as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.2).

III. PROCEDURE

- All agencies that intend to provide a Tactical Medicine for Special Operations that include EMTs, AEMTs, EMT-Ps and RNs, will:

  - Submit an original application indicating the type of program. The Specialty and Optional Scope Program Application is available on the ICEMA website at ICEMA.net.

  - Submit a copy of the proposed program to include all information as listed on the application.

  - Provide a list of all EMTs, AEMTs, EMT-Ps and RNs assigned to the Tactical Medicine for Special Operations.

  - Tactical medicine personnel must be:

    - EMTs and AEMTs must be California certified.
    - EMT-Ps must be California licensed and accredited by ICEMA.
    - RNs must be licensed as a Registered Nurse in California and an authorized Flight Nurse or MICN within the ICEMA region.

  - Participate in ICEMA approved Continuous Quality Improvement process.

IV. TRAINING

Designated Tactical Emergency Medical Support (TEMS) personnel shall successfully complete all initial and ongoing recommended training provided by an approved tactical medicine training program as listed in the California POST/EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* (March 2010) or *California Tactical Casualty Care Training Guidelines* (EMSA #370, June 2017).

V. DRUG AND EQUIPMENT LISTS

Equipment and supplies carried and utilized by Tactical Emergency Medical Support (TEMS) personnel shall be consistent with the items listed in the California POST/EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* document. Equipment and supplies shall be based on the appropriate level of personnel utilized for the particular Tactical Medicine for Special Operations (TEMS BLS or TEMS ALS).

The Tactical Medicine for Special Operations standard list of drugs and equipment carried by TEMS BLS or TEMS ALS medical personnel must be reviewed and approved by ICEMA prior to issue or use by EMT or EMT-P personnel.

TACTICAL MEDICINE OPERATIONAL EQUIPMENT RECOMMENDATIONS

Medications	BLS	ALS
Albuterol 2.5 mg with Atrovent 0.5 mg MDI		1
Aspirin 81 mg		1 bottle
Atropine Sulfate 1 mg preload		1
Dextrose 50% 25 gm preload		1
Diphenhydramine 50 mg		2
Epinephrine (1:1000) 1 mg		2
Epinephrine (1:10,000)1 mg preload		2
Glucagon 1 mg		1
Naloxone 2 mg preload		2
Nerve Agent Antidote (DuoDote)		1
Nitroglycerine 0.4 metered dose or tablets (tablets to be discarded 90 days after opening)		1
Normal Saline 500 ml		2
Ondansetron 4 mg IV/IM/oral tabs		4
Tranexamic Acid (TXA) 1 gm		1

CONTROLLED SUBSTANCE MEDICATIONS

Controlled Substance Medications MUST BE DOUBLED LOCKED	BLS	ALS
Midazolam		20 mgs
Fentanyl		200 - 400 mcg
Ketamine		120 - 500 mg

AIRWAY EQUIPMENT

Airway Equipment	BLS	ALS
Chest seal and Flutter Valve		1
End Tidal CO2 (device may be integrated into bag)		1
Endotracheal Tubes - 6.0 and/or 6.5, 7.0 and/or 7.5, and 8.0 and/or 8.5 with stylet		1 each

Airway Equipment	BLS	ALS
ET Tube holder		1
King LTS-D Size 4 and 5	1 each if approved	1 each
Laryngoscope Kit		1
Nasopharyngeal Airways Adult	1 set	1 set
Needle Cricothyrotomy Device		1
Needle Thoracostomy Kit		1
Suction (hand held)	1	1
Ventilation Bag collapsible (BVM)	1	1

IV/MONITORING EQUIPMENT

IV/Needle/Syringes	BLS	ALS
AED (with waveform monitoring preferred)	1	1
AED Pads	1	1
Blood Pressure Cuff	1	1
IO Device and Needles		1
IV Needles 14-20 Gauge		1 of each
IV Start Kit		1
IV Tubing		1
Pulse Oximeter (optional)		1
Saline Flush		2
Saline Lock		2
Stethoscope	1	1
Syringes 3 cc, 5 cc, 10 cc		1 each

DRESSING AND SPLINTING

Dressing/Splints	BLS	ALS
CoTCCC - Recommended tourniquet system	1	1
Elastic compression dressing	1	1
Latex free gloves	1	1
N95 Mask	1	1
Occlusive dressing	1	1
Roller bandage	1	1
Splint - semi-ridged moldable	1	1
Sterile gauze pads	1	1
Tape	1	1
Trauma dressing	1	1
Trauma shears	1	1
Dressing/Splints	**BLS**	**ALS**
Triangle bandage	1	1
Hemostatic impregnated gauze non-exothermic, i.e., Combat Gauze (optional)	2	2

MISCELLANEOUS EQUIPMENT

Miscellaneous Equipment	BLS	ALS
Litter	1	1
Patient care record	1	1
Personal protection equipment (PPE)	1	1
Triage tags	10	10
Tactical light	1	1
Eyeware	1	1
Rescue blanket	1	1
Self-heating blanket	1	1

BLS/LALS/ALS STANDARD DRUG AND EQUIPMENT LIST

Each ambulance and first responder unit shall be equipped with the following functional equipment and supplies. **This list represents mandatory items with minimum quantities** excluding narcotics, which must be kept within the range indicated. All expiration dates must be current. All packaging of drugs or equipment must be intact. No open products or torn packaging may be used.

All ALS (transport and non-transport) and BLS transport vehicles shall be inspected annually.

MEDICATIONS/SOLUTIONS

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Adenosine (Adenocard) 6 mg			1	1
Adenosine (Adenocard) 12 mg			2	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg		4 doses	4 doses	4 doses
Albuterol MDI with spacer		1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY
Aspirin, chewable - 81 mg tablet		2	1 bottle	1 bottle
Atropine 1 mg preload			2	2
Calcium Chloride 1 gm preload			1	1
Dextrose 10% in 250 ml Water (D10W) *		2	2	2
Diphenhydramine (Benadryl) 50 mg			1	1
Epinephrine 1 mg/ml 1 mg		2	2	2
Epinephrine 0.1 mg/ml 1 mg preload			4	4
Glucagon 1 mg		1	1	1
Glucose paste	1 tube	1 tube	1 tube	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg			4	4
Irrigating Saline and/or Sterile Water (1000 cc)	2	1	1	2
Lidocaine 100 mg			3	3
Lidocaine 2% Intravenous solution			1	1
Lidocaine 2% (Viscous) dose			1	1
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload	2	2	2	2
Nitroglycerine (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2
Normal Saline 250 cc			1	1

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Normal Saline 500 ml and/or 1000 ml		2000 ml	3000 ml	6000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)			4	4
Ondansetron (Zofran) 4 mg IM/ IV			4	4
Sodium Bicarbonate 50 mEq preload			2	2
Tranexamic Acid (TXA) 1 gm			2	2

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	BLS	LALS	ALS Non-Transport	ALS Transport
Fentanyl			200-400 mcg	200-400 mcg
Midazolam			20-40 mg	20-40 mg
Ketamine			120-1000 mg	120-1000 mg

AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
CPAP circuits - all manufacture's available sizes	1 (if CPAP is carried)	1 (if CPAP is carried)	1 each	2 each
End-tidal CO2 device - Pediatric and Adult (may be integrated into bag)			1 each	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet			2 each	2 each
ET Tube holders - adult		1 each	1 each	2 each
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	2 each SPECIALTY PROGRAMS ONLY	1 each	1 each	2 each
Mask - Adult & Pediatric non-rebreather oxygen mask	2 each	2 each	2 each	2 each
Mask - Infant Simple Mask	1	1	1	1
Nasal cannulas - pediatric and adult	2 each	2 each	2 each	2 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr			1 each	1 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr			1 each	1 each
Nasopharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Needle Cricothyrotomy Device - Pediatric and adult or Needles for procedure 10, 12, 14 and/or 16 gauge			1 each 2 each	1 each 2 each
One way flutter valve with adapter or equivalent			1	1
Oropharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Rigid tonsil tip suction	1		1	1
Small volume nebulizer with universal cuff adaptor		2	2	2
Suction Canister	1		1	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each		1 each	1 each

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Ventilation Bags -				
Infant 250 ml	1	1	1	1
Pediatric 500 ml (or equivalent)	1	1	1	1
Adult	1	1	1	1
Water soluble lubricating jelly		1	1	1

Non-Exchange Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Ambulance oxygen source -10 L /min for 20 minutes	1			1
Flashlight/penlight	1	1	1	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight			1 each	1 each
Laryngoscope handle with batteries - or 2 disposable handles			1	1
Magill Forceps - Pediatric and Adult			1 each	1 each
Manual powered suction device		1		
Portable oxygen with regulator - 10 L /min for 20 minutes	1	1	1	1
Portable suction device (battery operated)	1		1	1
Pulse Oximetry device	(SEE OPTIONAL EQUIPMENT SECTION, PG. 5)	1	1	1
Stethoscope	1	1	1	1
Wall mount suction device	1 (BLS TRANSPORT ONLY)			1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Conductive medium or Pacer/Defibrillation pads			2 each	2 each
Disposable Tourniquets		2	2	2
ECG electrodes			20	20
EZ-IO Driver			1 each	1 each
EZ-IO Needles:				
25 mm			2 each	2 each
45 mm			1 each	1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets	1	1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macrodrip Administration Set		3	3	3
Microdrip Administration Set (60 drops /cc)		1	1	2

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Mucosal Atomizer Device (MAD) for nasal administration of medication	2	2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21gauge and 23 or 25 gauge	2 each	2 each	2 each	2 each
Saline Lock Large Bore Tubing Needleless		2	2	2
Sterile IV dressing		2	2	2
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc catheter tip		2 each		
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc, 20 cc, 60 cc catheter tip			2 each	2 each

Non-Exchange IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
12-lead ECG Monitor and Defibrillator with TCP and printout			1	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant (one of each size)	1	1	1	1
Capnography monitor and supplies, may be integrated in the cardiac monitor			1	1
Needle disposal system (OSHA approved)	1	1	1	1
Thermometer - Mercury Free with covers	1	1	1	1

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Ammonia Inhalants			2	2
Automatic CPR device (FDA approved)	1	1	1	1
Automatic transport ventilator (Specialty Program Only - ICEMA approved device)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Chemistry profile tubes			3	3
CPAP - (must be capable of titrating pressure between 2 and 15 cm H_2O)	1 (optional)	1 (optional)	1	1
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3	3	3	3
EMS Tourniquet	1		1	1
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes only or EZ-IO needles and	1 each	1 each

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
		drivers		
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2
Needle Thoracostomy Kit (prepackaged)			2	2
Pulse Oximetry device	1			
Translaryngeal Jet Ventilation Device			1	1
Vacutainer			1	1

* Hemostatic Dressings

- Quick Clot, Z-Medica
  - Quick Clot, Combat Gauze LE
  - Quick Clot, EMS Rolled Gauze, 4x4 Dressing, TraumaPad
- Celox
  - Celox Gauze, Z-Fold Hemostatic Gauze
  - Celox Rapid, Hemostatic Z-Fold Gauze
- HemCon ChitoFlex Pro Dressing

Note:

- The above products are "packaged" in various forms (i.e., Z-fold, rolled gauze, trauma pads, 4"x4"pads) and are authorized provided they are comprised of the approved product.
- Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

Exchanged Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
Adhesive tape - 1 inch	2	2	2	2
Air occlusive dressing	1	1	1	1
Ankle and wrist restraints, soft ties acceptable	1		1	1
Antiseptic swabs/wipes	10	10	10	10
Bedpan or fracture pan Urinal	1 (BLS TRANSPORT UNITS ONLY 1 (BLS TRANSPORT UNITS ONLY			1 1
Cervical Collars - Rigid Pediatric and Adult all sizes or Cervical Collars - Adjustable Adult and Pediatric	2 each 2 each	2 each 2 each	2 each 2 each	2 each 2 each
Cold Packs	2	2	2	2
Emesis basin or disposable bags and covered waste container	1	1	1	1
Head immobilization device	2	2	2	2
OB Kit	1	1	1	1
Pneumatic or rigid splints capable of splinting all extremities	4	2	2	4
Provodine/Iodine swabs/wipes or antiseptic equivalent		4	10	10
Roller bandages - 4 inch	6	3	3	6
Sterile bandage compress or equivalent	6	2	2	6
Sterile gauze pads - 4x4 inch	4	4	4	4
Sterile sheet for Burns	2	2	2	2
Universal dressing 10x30 inches	2	2	2	2

Non-Exchange Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
800 MHz Radio		1	1	1
Ambulance gurney	1 (BLS TRANSPORT UNITS ONLY			1
Bandage shears	1	1	1	1
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2	1	2	2
Pediatric Emergency Measuring Tape (Broselow, etc.)		1	1	1
Drinkable water in secured plastic container or equivalent	1 gallon			1 gallon
Long board with restraint straps	1	1	1	1
Pediatric immobilization board	1	1	1	1

Non-Exchange Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
Pillow, pillow case, sheets and blanket	1 set (BLS TRANSPORT UNITS ONLY			1 set
Short extrication device	1	1	1	1
Straps to secure patient to gurney	1 set (BLS TRANSPORT UNITS ONLY			1 set
Traction splint	1	1	1	1
Triage Tags - ICEMA approved	20	20	20	20

EMS AIRCRAFT STANDARD DRUG AND EQUIPMENT LIST

Each Aircraft shall be equipped with the following functional equipment and supplies. This list represents mandatory items with minimum quantities, to exclude narcotics, which must be kept within the range indicated. All expiration dates must be current. All packaging of drugs or equipment must be intact. No open products or torn packaging may be used.

MEDICATIONS/SOLUTIONS	AMOUNT
Adenosine (Adenocard) 6 mg	1
Adenosine (Adenocard) 12 mg	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	3 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	2
Calcium Chloride 1 gm preload	1
Dextrose 10% in 250 ml Water (D10W) *	2
Diphenhydramine (Benadryl) 50 mg	1
Epinephrine 1 mg/ml 1 mg	2
Epinephrine 0.1 mg/ml 1mg preload	3
Glucagon 1 mg	1
Glucopaste	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	3
Lidocaine 100 mg	3
Lidocaine 2% Intravenous solution	1
Lidocaine 2% (Viscous)	1 dose
Magnesium Sulfate 10 gms	1
Naloxone (Narcan) 2 mg preload	2
Nitroglycerin (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10 cc)	2
Normal Saline 250 ml	1
Normal Saline 500 ml and/or 1000 ml	2000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Sodium Bicarbonate 50 mEq preload	2
Tranexamic Acid (TXA) 1 gm	2

CONTROLLED SUBSTANCE MEDICATIONS-MUST BE DOUBLE LOCKED	AMOUNT
Fentanyl	200-400 mcg
Ketamine	120-1000 mg
Midazolam	20-40 mg

AIRWAY/SUCTION EQUIPMENT	**AMOUNT**
Aircraft Oxygen source -10 L /min for 20 minutes	1
C-PAP circuits - all manufacture's available sizes	1 each
End-tidal CO2 device - pediatric and adult (may be integrated into bag)	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet	2 each
ET Tube holders - adult	1 each
Flashlight/penlight	1
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	1 each
Laryngoscope handle with batteries - or 2 disposable handles	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps - Pediatric and Adult	1 each
Nasal Cannulas - infant, pediatric and adult	2 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways - infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) - Pediatric and adult *or* Needles for procedure 10, 12, 14 and/or16 gauge	1 each 2 each
Non Re-Breather O_2 Mask - Pediatric and Adult, Infant Simple Mask	2 each
One way flutter valve with adapter or equivalent	1
Oropharyngeal Airways - infant, child, and adult	1 each
Portable Oxygen with regulator - 10 L /min for 20 minutes	1
Portable suction device (battery operated) *and/or* Wall mount suction device	1 each
Pulse Oximetry device	1
Small volume nebulizer with universal cuff adaptor	1
Stethoscope	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags - Infant 250 ml, Pediatric 500 ml and Adult 1 L	1 each
Water soluble lubricating jelly	1
Ridged tonsil tip suction	1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT	**AMOUNT**
12-Lead ECG Monitor and Defibrillator with TCP and printout	1
800 MHz Radio	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant	1 set
Capnography monitor and supplies, may be integrated in the cardiac monitor	1
Conductive medium *or* Adult and Pediatric Pacer/Defibrillation pads	2 each
ECG - Pediatric and Adult	20 patches
EZ IO Needles and Driver 25 mm and 45 mm	2 each 1 each
3-way stopcock with extension tubing	2
IO Needles - Manual, Adult and Pediatric, Optional	1 each
IV Catheters - sizes 14, 16, 18, 20, 22, 24	2 each

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT	AMOUNT
Glucose monitoring device	1
Macrodrip Administration Set Microdrip Administration Set (60 drops/ml)	3 1
Mucosal Atomizer Device (MAD) for nasal administration of medication	4
Needle disposal system (OSHA approved)	1
Pressure infusion bag	1
Safety Needles - 20 or 21 gauge and 23 or 25 gauge	2 each
Saline Lock	2
Syringes w/wo safety needles - 1 ml, 3 ml, 10 ml, 20 ml	2 each
Syringe - 60 ml catheter tip	2
Thermometer - Mercury free with covers	1

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
Adhesive tape - 1 inch	2
Air occlusive dressing	1
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Ankle and wrist restraints, soft ties acceptable	1
Antiseptic swabs/wipes	
Bandage shears	1
Blanket or sheet	2
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2
Cervical Collars - Rigid Pediatric & Adult all sizes *or* Cervical Collars - Adjustable Adult and Pediatric	1 each 1 each
Emesis basin or disposable bags and covered waste container	1
Head immobilization device	1
OB Kit	1
Pediatric Emergency Measuring Tape (Broselow, etc.)	1
Pneumatic or rigid splints capable of splinting all extremities	4
Provodine/Iodine swabs/wipes or antiseptic equivalent	
Roller bandages - 4 inch	3
Sterile bandage compress or equivalent	6
Sterile gauze pads - 4x4 inch	4
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Ammonia Inhalants	2
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Chemistry profile tubes	3

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3
D5W in bag	1
Hemostatic Dressing *	1
IV infusion pump	1
IV warming device	1
Manual powered suction device	1
Medical Tourniquet	1
Needle Thoracostomy Kit (prepackaged)	2
Pediatric immobilization board	1
Translaryngeal Jet Ventilation Device	1
Vacutainer	1

* Hemostatic Dressings

- Quick Clot, Z-Medica
  - Quick Clot, Combat Gauze LE
  - Quick Clot, EMS Rolled Gauze, 4x4 Dressing, TraumaPad
- Celox
  - Celox Gauze, Z-Fold Hemostatic Gauze
  - Celox Rapid, Hemostatic Z-Fold Gauze
- HemCon ChitoFlex Pro Dressing

Note:

- The above products are "packaged" in various forms (i.e., Z-fold, rolled gauze, trauma pads, and 4"x4" pads) and are authorized provided they are comprised of the approved product.
- Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.

MEDICATION - STANDARD ORDERS

Medications listed in this protocol may be used only for the purposes referenced by the associated ICEMA Treatment Protocol.

For Nerve Agent Antidote Kit (NAAK) or medications deployed with the ChemPack see Appendix I (Page 12).

Adenosine (Adenocard) - Adult (ALS)

Stable narrow-complex SVT or Wide complex tachycardia:

Adenosine, 6 mg rapid IVP followed immediately by 20 cc NS bolus, and Adenosine, 12 mg rapid IVP followed immediately by 20 cc NS bolus if patient does not convert. May repeat one (1) time.

Reference #s 7010, 7020, 11050

Albuterol (Proventil) Aerosolized Solution - Adult (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 6090, 7010, 7020, 11010, 11100

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Adult (LALS, ALS - Specialty Programs Only)

Albuterol MDI, four (4) puffs every ten (10) minutes for continued shortness of breath and wheezing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Albuterol (Proventil) - Pediatric (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 7010, 7020, 14010, 14030, 14070

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Pediatric (LALS, ALS - Specialty Programs Only)

Albuterol MDI, four (4) puffs every ten (10) minutes for continued shortness of breath and wheezing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Aspirin, chewable (LALS, ALS)

Aspirin, 325 mg PO chewed (one (1) adult non-enteric coated aspirin) or four (4) chewable 81 mg aspirin.

Reference #s 2020, 6090, 6110, 7010, 7020, 11060

Atropine (ALS)

Atropine, 0.5 mg IV/IO. May repeat every five (5) minutes up to a maximum of 3 mg or 0.04 mg/kg.

Organophosphate poisoning:
Atropine, 2 mg IV/IO, repeat at 2 mg increments every five (5) minutes if patient remains symptomatic.

Reference #s 6090, 6110, 7010, 7020, 11040, 12020, 13010

Calcium Chloride (ALS)

Calcium Channel Blocker Poisonings:
Calcium Chloride, 1 gm (10 cc of a 10% solution) IV/IO, base hospital order only.

Reference #s 2020, 7010, 7020, 13010

Dextrose - Adult (LALS, ALS)

Hypoglycemia - Adult with blood glucose less than 80 mg/dL:
Dextrose 10% /250 ml (D10W 25 gm) IV/IO Bolus

Reference #s 2020, 6090, 6110, 7010, 7020, 8010, 11050, 11080, 13020, 13030

Dextrose - Pediatric (LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:
Dextrose 10%/250 ml (D10W 25 gm) 0.5 gm/kg (5 ml/kg) IV/IO

Reference #s 2020, 7010, 7020, 13020, 13030, 14040, 14050, 14060

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

Reference #s 6090, 6110, 7010, 7020, 11010, 13010

Diphenhydramine - Pediatric (ALS)

Diphenhydramine, 1 mg/kg slow IV/IO, not to exceed adult dose of 25 mg, **or**

Diphenhydramine, 2 mg/kg IM not to exceed adult dose of 50 mg IM

Reference #s 7010, 7020, 14030

Epinephrine (1 mg/ml) - Adult (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:
Epinephrine, 0.3 mg IM. May repeat after fifteen (15) minutes one (1) time if symptoms do not improve.

Reference # 11010

Epinephrine (0.1 mg/ml) - Adult (ALS)

For persistent severe anaphylactic reaction:
Epinephrine (0.1 mg/ml), 0.1 mg slow IVP/IO. May repeat every five (5) minutes as needed to total dosage of 0.5 mg.

Reference # 11010

Cardiac Arrest, Asystole, PEA:
Epinephrine (0.1 mg/ml), 1 mg IV/IO. Repeat after every two (2) minute cycle of CPR.

Reference #s 2020, 6090, 6110, 7010, 7020, 11010, 11070, 12020

Epinephrine (0.01 mg/ml) - Adult (ALS)

For persistent profound shock and hypotension (Push Dose Epinephrine):

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 1 ml every one (1) to five (5) minutes titrated to maintain SBP more than 90 mm Hg.

Reference #s 2020, 6090, 6110, 7010, 7020, 7040, 11090

Epinephrine (1 mg/ml) - Pediatric (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:
Epinephrine, 0.01 mg/kg IM not to exceed adult dosage of 0.3 mg.

Reference #s 2020, 6090, 7010, 7020, 14010, 14030

Epinephrine (0.1 mg/ml) - Pediatric (ALS)

Anaphylactic reaction (no palpable radial pulse and depressed level of consciousness):

Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO, no more than 0.1 mg per dose. May repeat to a maximum of 0.5 mg.

Cardiac Arrest:

1 day to 8 years	Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO (do not exceed adult dosage)
9 to 14 years	Epinephrine (0.1mg/ml), 1.0 mg IV/IO

Newborn Care:

Epinephrine (0.1 mg/ml), 0.01mg/kg IV/IO if heart rate is less than 60 after one (1) minute after evaluating airway for hypoxia and assessing body temperature for hypothermia.

Epinephrine (0.1 mg/ml), 0.005 mg/kg IV/IO every ten (10) minutes for persistent hypotension as a base hospital order or in radio communication failure.

Reference # 14090

Epinephrine (0.01 mg/ml) - Pediatric (ALS)

Post resuscitation, profound shock and hypotension (Push Dose Epinephrine):

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 0.1ml/kg (do not exceed adult dosage), every one (1) to five (5) minutes. Titrate to maintain a SBP more than 70 mm Hg.

Reference #s 2020, 7010, 7020, 7040, 11090, 14040

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Acute traumatic injuries, acute abdominal/flank pain, burn injuries, Cancer pain, Sickle Cell Crisis:

Fentanyl, 50 mcg slow IV/IO push over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg IV/IO, **or**

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Pacing, synchronized cardioversion:

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Reference #s 2020, 6090, 6110, 7010, 7020, 7030, 10190, 11060, 11100, 11140, 13030, 15010

Fentanyl - Pediatric (ALS)

Fentanyl, 0.5 mcg/kg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 100 mcg.

Fentanyl, 1 mcg/kg IM/IN, may repeat every ten (10) minutes titrated to pain not to exceed 200 mcg.

Reference #s 2020, 6110, 7010, 7020, 7030, 11060, 13030, 14070, 15020

Glucose - Oral - Adult (BLS, LALS, ALS)

Adult with blood glucose less than 80 mg/dL:

Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 11080, 11090, 11110, 13020

Glucose - Oral - Pediatric (BLS, LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:

Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 14050, 14060

Glucagon - Adult (LALS, ALS)

Glucagon, 1 mg IM/SC/IN, if unable to establish IV. May administer one (1) time only.

Beta blocker Poisoning:

Glucagon, 1 mg IV/IO (base hospital order only)

Reference #s 6090, 6110, 7010, 7020, 11080, 13010, 13030

Glucagon - Pediatric (LALS, ALS)

Glucagon, 0.025 mg/kg IM/IN, if unable to start an IV. May be repeated one (1) time after twenty (20) minutes for a combined maximum dose of 1 mg.

Reference #s 7010, 7020, 13030, 14050, 14060

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol Adult (ALS)

Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 11010, 11100

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol Adult (ALS - Specialty Programs Only)

When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 6090, 6110, 7010, 7020, 11010, 11100

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol - Pediatric (ALS)

1 day to 12 months	Atrovent, 0.25 mg nebulized. Administer one (1) dose only.
1 year to 14 years	Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 14010, 14030, 14070

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol - Pediatric (ALS - Specialty Programs Only)

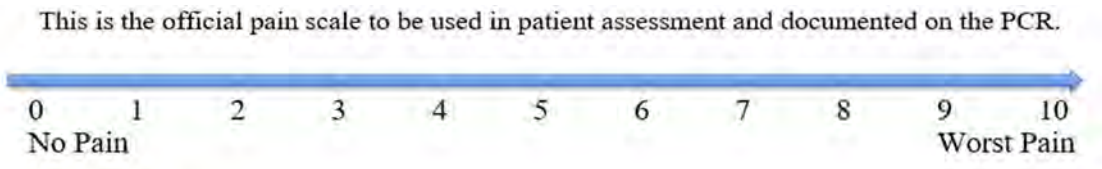
When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Ketamine - Adult (ALS)

Acute traumatic injury, acute abdominal/flank pain, burn injuries, cancer related pain and sickle cell crisis:

Ketamine, 0.3 mg/kg to a max of 30 mg in a 50 - 100 ml of NS via IV over five (5) minutes. May repeat one (1) time, after 15 minutes, if pain score remains at five (5) or higher. Do not administer IVP, IO, IM, or IN.



Reference #s 7010, 7020, 11140

Lidocaine - Adult (ALS)

Endotracheal Intubation, for suspected increased intracranial pressure (ICP):
Lidocaine, 1.5 mg/kg IV/IO

VT (pulseless)/VF:
Initial Dose: Lidocaine, 1.5 mg/kg IV/IO

For refractory *VT (pulseless)/VF*, may administer an additional 0.75 mg/kg IV/IO, repeat one (1) time in five (5) to ten (10) minutes; maximum total dose of 3 mg/kg.

V-Tach, Wide Complex Tachycardia - with Pulses:
Lidocaine, 1.5 mg/kg slow IV/IO

May administer an additional 0.75 mg/kg slow IV/IO; maximum total dose of 3 mg/kg.
Reference #s 2020, 6090, 7010, 7020, 8010, 10190, 11050, 11070, 15010

Lidocaine - Pediatric (ALS)

Cardiac Arrest:

1 day to 8 years	Lidocaine, 1.0 mg/kg IV/IO
9 to 14 years	Lidocaine, 1.0 mg/kg IV/IO

May repeat Lidocaine at 0.5 mg/kg after five (5) minutes; maximum total dose of 3 mg/kg.

Reference #s 2020, 7010, 7020, 14040

Lidocaine 2% (Intravenous Solution) - Pediatric and Adult (ALS)

Pain associated with IO infusion:
Lidocaine, 0.5 mg/kg slow IO push over two (2) minutes, not to exceed 40 mg total.

Reference #s 2020, 7010, 7020, 10140, 10190

Lidocaine 2% Gel (Viscous) - Pediatric and Adult (ALS)

Pain associated with Nasogastric/Orogastric Tube insertion.

Reference # 10190

Magnesium Sulfate (ALS)

Polymorphic Ventricular Tachycardia:
Magnesium Sulfate, 2 gm IV/IO bolus over five (5) minutes for polymorphic VT if prolonged QT is observed during sinus rhythm post-cardioversion.

Eclampsia (Seizure/Tonic/Clonic Activity):

Magnesium Sulfate, 4 gm IV/IO slow IV push over three (3) to four (4) minutes.

Magnesium Sulfate, 10 mg/min IV/IO drip to prevent continued seizures.

Reference #s 2020, 7010, 7020, 8010, 14080

Midazolam (Versed) - Adult (ALS)

Behavioral Emergencies, with suspected excited delirium:

Midazolam, 5 mg IM/IN or IV/IO push. May repeat once for a total dosage of 10 mg.

Reference # 11130

Seizure:

Midazolam, 2.5 mg IV/IO/IN. May repeat in five (5) minutes for continued seizure activity, **or**

Midazolam, 5 mg IM. May repeat in ten (10) minutes for continued seizure activity.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Pacing, synchronized cardioversion:

Midazolam, 2 mg slow IV/IO push or IN

Reference #s 6090, 6110, 7010, 7020, 10190, 11080, 13020, 14080

Midazolam (Versed) - Pediatric (ALS)

Seizures:

Midazolam, 0.1 mg/kg IV/IO with maximum dose 2.5 mg. May repeat Midazolam in five (5) minutes, **or**

Midazolam, 0.2 mg/kg IM/IN with maximum dose of 5 mg. May repeat Midazolam in ten (10) minutes for continued seizure.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 7010, 7020, 14060

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IM/IN, may repeat Naloxone 0.5 mg IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 7010, 7020, 8050 11080

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IV/IO/IM/IN, may repeat Naloxone 0.5 mg IV/IO/IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 6110, 7010, 7020, 11080

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years	Naloxone, 0.1 mg/kg IM/IN (do not exceed the adult dose of 0.5 mg per administration)
9 to 14 years	Naloxone, 0.5 mg IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IM/IN.

Reference #s 7010, 7020, 8050, 14040, 14050

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years	Naloxone, 0.1 mg/kg IV/IO/IM/IN (do not exceed the adult dose of 0.5 mg per administration)
9 to 14 years	Naloxone, 0.5 mg IV/IO/IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IV/IO/IM/IN.

Reference #s 7010, 7020, 14040, 14050

Nitroglycerin (NTG) (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

One (1) every three (3) minutes as needed. May be repeated as long as patient continues to have signs of adequate tissue perfusion. **If a Right Ventricular Infarction is suspected, the use of nitrates requires base hospital contact.**

Nitroglycerin is contraindicated if there are signs of inadequate tissue perfusion or if sexual enhancement medications have been utilized within the past forty-eight (48) hours.

Reference #s 6090, 6110, 7010, 7020, 11010, 11060

Ondansetron (Zofran) - Patients four (4) years old to Adult (ALS)

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

All patients four (4) to eight (8) years old: May administer a total of 4 mgs of Ondansetron prior to base hospital contact.

All patients nine (9) and older: May administer Ondansetron 4 mg; may repeat two (2) times, at ten (10) minute intervals, for a total of 12 mgs prior to base hospital contact.

May be used as prophylactic treatment of nausea and vomiting associated with narcotic administration.

Reference #s 6110, 7010, 7020, 9120, 10100, 15010, 15020

Oxygen (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):

Titrate Oxygen at lowest rate required to maintain SPO_2 at 94%. Do not administer supplemental oxygen for SPO_2 more than 95%.

Chronic Obstructive Pulmonary Disease (COPD):

Titrate Oxygen at lowest rate required to maintain SPO_2 at 90%. Do not administer supplemental oxygen for SPO_2 more than 91%.

Reference #s 9010, 9120, 11010, 11020, 11040, 11050, 11060, 11080, 11090, 11100, 11150, 13010, 13020, 13030, 14010, 14020, 14030, 14050, 14060, 14070, 14080, 14090, 15010, 15020

Sodium Bicarbonate (ALS) (base hospital order only)

Tricyclic Poisoning:

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 2020, 7010, 7020, 13010

Tranexamic Acid (TXA) - Patients 15 years of age and older (ALS)

Signs of hemorrhagic shock meeting inclusion criteria:

Administer TXA 1 gm in 50 - 100 ml of NS via IV/IO over ten (10) minutes. Do not administer IVP as this will cause hypotension.

Reference #s 7010, 7020, 15010

APPENDIX I

Medications for self-administration or with deployment of the ChemPack.

Medications listed below may be used only for the purposes referenced by the associated ICEMA Treatment Protocol. Any other use, route or dose other than those listed, must be ordered in consultation with the Base Hospital physician.

Atropine - Pediatric (BLS, AEMT-Auto-injector only with training, ALS)

Known nerve agent/organophosphate poisoning with deployment of the ChemPack using:

Two (2) or more mild symptoms: Administer the weight-based dose listed below as soon as an exposure is known or strongly suspected. If severe symptoms develop after the first dose, two (2) additional doses should be repeated in rapid succession ten (10) minutes after the first dose; do not administer more than three (3) doses. If profound anticholinergic effects occur in the absence of excessive bronchial secretions, further doses of atropine should be withheld.

One (1) or more severe symptoms: Immediately administer (3) three weight-based doses listed below in rapid succession.

Weight-based dosing:

Less than 6.8 kg (less than 15 lbs):	0.25 mg, IM using multi-dose vial
6.8 to 18 kg (15 to 40 lbs):	0.5 mg, IM using AtroPen auto-injector
18 to 41 kg (40 to 90 lbs):	1 mg, IM using AtroPen auto-injector
More than 41 kg (more than 90 lbs):	2 mg, IM using multi-dose vial

Symptoms of insecticide or nerve agent poisoning, as provided by manufacturer in the AtroPen product labeling, to guide therapy:

Mild symptoms: Blurred vision, bradycardia, breathing difficulties, chest tightness, coughing, drooling, miosis, muscular twitching, nausea, runny nose, salivation increased, stomach cramps, tachycardia, teary eyes, tremor, vomiting, or wheezing.

Severe symptoms: Breathing difficulties (severe), confused/strange behavior, defecation (involuntary), muscular twitching/generalized weakness (severe), respiratory secretions (severe), seizure, unconsciousness, urination (involuntary).

NOTE: Infants may become drowsy or unconscious with muscle floppiness as opposed to muscle twitching.

Reference #s 7040, 13010, 13040

Diazepam (Valium) - Adult (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 10 mg (5 mg/ml) auto-injector IM (if IV is unavailable), **or**
Diazepam 2.5 mg IV

Reference # 13040

Diazepam (Valium) - Pediatric (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 0.05 mg/kg IV

Reference # 13040

Nerve Agent Antidote Kit (NAAK)/Mark I or DuoDote (containing Atropine/Pralidoxime Chloride for self-administration or with deployment of the ChemPack) - Adult

Nerve agent exposure with associated symptoms:

One (1) NAAK auto-injector IM into outer thigh. May repeat up to two (2) times every ten (10) to fifteen (15) minutes if symptoms persist.

Reference #s 7010, 7020, 13010, 13040

REQUESTS FOR AMBULANCE REDIRECTION AND HOSPITAL DIVERSION

(San Bernardino County Only)

I. PURPOSE

To define policy and procedures for hospitals to request temporary redirection of advanced life support (ALS) ambulances.

II. POLICY

- Ambulance redirection based on hospital capacity, census or staffing is not permitted in the ICEMA region and will only be permitted as outlined in this policy.

- This policy applies to the 9-1-1 emergency system as a temporary measure and is not intended for utilization to determine destination for interfacility transports, including higher level of care transports.

- If a hospital meets internal disaster criteria, Trauma Center Diversion or any other specialty care centers with unique circumstances, immediate telephone notification must be made to the ICEMA Duty Officer by an administrative staff member who has the authority to determine that criteria has been met for redirection or diversion.

- Hospitals must notify EMS dispatch centers immediately via ReddiNet or available communication modalities.

- Hospitals must maintain a hospital redirection policy that conforms with this policy. The hospital policy shall include plans to educate all appropriate staff on proper utilization of redirection..

- Receiving hospitals cannot redirect an incoming ambulance and diversion/redirection is only permitted as outlined in this policy.

- Within 72 hours of an incident, the hospital must provide ICEMA with a written after action report indicating the reasons for internal disaster, plans activated, adverse patient consequences and the corrective actions taken. The report must be signed by the CEO or designated responsible individual.

- ICEMA may perform unannounced site visits to hospitals on temporary redirection status to ensure compliance with the request for ambulance redirection.

- ICEMA may randomly audit base hospital records to ensure redirected ambulance patients are transported to the appropriate destination.

- ICEMA staff may contact the hospital to determine the reasons for ambulance redirection, under this policy.

- ICEMA may remove any hospital from redirection status using ReddiNet if it is determined that the request is not consistent with this policy.

III. PROCEDURE

A request for redirection of ALS ambulances may be made for the following approved categories:

- CT Redirection (for Non-Specialty Care Centers)

  - When Non-Specialty Care Centers experience CT scanner failure, the hospital can go on ambulance redirection using the ReddiNet system for EMS patients who may require CT imaging.

- Trauma Center Diversion (for use by designated Trauma Centers only)

  - The on duty trauma surgeon must be involved in the decisions regarding any request for trauma diversion.

  - The trauma team and trauma surgeon (both first and second call) and are fully committed to the care of trauma patients in the operating room and are NOT immediately available for any additional incoming patients meeting approved trauma triage criteria.

  - All operating rooms are occupied with critically injured patients that meet trauma triage criteria.

  - All CT Scanners are inoperable due to scanner failure at a designated Trauma Center.

  - Internal disaster.

  NOTE: Diversion is canceled when all designated Trauma Centers are on Trauma Center Diversion.

- **Internal Disaster Diversion**

  - Requests for Internal Disaster Diversion shall apply only to physical plant breakdown affecting the Emergency Department or significant patient services.

    NOTE: Examples of Internal Disaster Diversion include bomb threats, explosions, power outage and a nonfunctional generator, fire,

earthquake damage, hazardous materials exposure, incidents involving the safety and/or security of a facility.

- Internal Disaster Diversion shall not be used for hospital capacity or staffing issues.
- Internal Disaster Diversion will stop all 9-1-1 transports into the facility.
- The hospital CEO or AOD shall be notified and notification documented in ReddiNet.
- If the hospital is a designated base hospital, the hospital should consider immediate transfer of responsibility for on-line direction to another base hospital. Notification must be made to the EMS provider.
- The affected hospital shall enter Internal Disaster Diversion status into ReddiNet immediately.

IV. EXCEPTIONS TO CT AND TRAUMA DIVERSION ONLY

- Basic life support (BLS) ambulances shall not be diverted.
- Ambulances on hospital property shall not be diverted.
- With the exception of Internal Disaster Diversion involving significant plant failure, patients exhibiting unmanageable problems (i.e., difficult to manage airway, uncontrolled hemorrhage, cardiopulmonary arrest) in the field, shall be transported to the closest emergency department.

V. REFERENCES

Number	Name
6100	Stroke Critical Care System Designation (San Bernardino County Only)
15030	Trauma Triage Criteria and Destination Policy

CONTINUATION OF CARE
(San Bernardino County Only)

I. PURPOSE

To develop a system that ensures the rapid transport of patients upon arrival at a receiving hospital that requires urgent transfer to a higher level of care.

This policy shall only be used for:

- Rapid transport of STEMI, stroke and trauma patients from referral hospitals to the appropriate Specialty Care Center.
- Specialty Care Center to Specialty Care Center when higher level of care is required.
- EMS providers that are transporting unstable patients to a STEMI, Stroke or Trauma Center but need to stop at the closest receiving hospital for airway stabilization before continuing to a Specialty Care Center.

It is not to be used for interfacility transfer of patients.

II. INCLUSION CRITERIA

- Patients meeting ICEMA Reference #15030 - Trauma Triage Criteria, who arrive at a non-trauma hospital.
- Upon recognition of any critically injured patient that require urgent transfer from one trauma receiving center to a higher level of care trauma receiving center.
- Patients requiring subspecialty services that are not a requirement for trauma center designation (i.e., reimplantation, hand surgery, burn, etc.) are not covered by this policy and must be managed through the normal interfacility transfer process compliant with all applicable regulations.
- Any patient with a positive STEMI requiring EMS transport to a STEMI Receiving Center (refer to ICEMA Reference #6070 - ST Elevation Myocardial Infarction Critical Care System Designation).
- Any patient with a positive mLAPSS requiring EMS transport to a Stroke Receiving Center, (refer to ICEMA Reference #6100 - Stroke Critical Care System Designation).

- Any stroke patient identified with a Large Vessel Occlusion (LVO) requiring rapid EMS transport to higher level of care for Endovascular Stroke Treatment.

III. INITIAL TREATMENT GOALS AT REFERRAL HOSPITAL

- Initiate resuscitative measures within the capabilities of the facility.
- Ensure patient stabilization is adequate for subsequent transport.
- Do not delay transport by initiating any diagnostic procedures that do not have direct impact on immediate resuscitative measures.

  ➢ GUIDELINES FOR USE OF CONTINUATION OF CARE POLICY

  Less than 30 minutes at referral hospital (door-in/door-out).
  Less than 30 minutes to complete ALS continuation of care transport.
  Less than 30 minutes door-to-intervention at Specialty Care Center.
  Less than 60 minutes for rapid identification of a LVO at a primary stroke center.

- Referral hospital shall contact the appropriate Specialty Care Center ED physician directly without calling for an inpatient bed assignment.
- Specialty Care Centers should route requests directly to the ED physician and bypass their transfer center triage process.
- EMS providers shall make contact with Specialty Care Centers to notify of the estimated time of arrival.
- Specialty Care Centers shall accept all referred STEMI, stroke and trauma patients meeting criteria in this policy unless they are on Internal Disaster as defined in ICEMA Reference #8060 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).
- The ED physician is the accepting physician at the Specialty Care Center and will activate the STEMI, Stroke or Trauma Team according to internal policies or protocols.
- The referral hospital ED physician will determine the appropriate mode of transportation for the patient.

- Simultaneously call 9-1-1 and utilize the following script to dispatch:

  "This is a continuation of care from ____ hospital to ____ STEMI, Stroke or Trauma Center"

  Fire departments will not be dispatched for 9-1-1 continuation of care calls, the dispatchers will only dispatch transporting ALS ambulances.

- Referral hospital ED physician will provide a verbal report to the ED physician at the Specialty Care Center.

- Referral hospital will send all medical records, test results, radiologic evaluations to the Specialty Care Center. DO NOT DELAY TRANSPORT - these documents may be electronically submitted or faxed to the Specialty Care Center.

IV. SPECIAL CONSIDERATIONS FOR REFERRAL HOSPITALS

- If a patient arrives to a referral hospital via EMS field personnel, a physician may request that the transporting team remain and immediately transport the patient once minimal stabilization is completed.

- If a suspected stroke patient presenting to a non-designated stroke center is outside of the tPA administration window (greater than 4.5 hours from "last seen normal"), consider contacting nearest thrombectomy capable or comprehensive stroke center to determine the best destination. Then follow the 9-1-1 script.

- Unless medically necessary, avoid using medications or IV drips that are outside of the EMT-P scope of practice to avoid delays in transferring of patients.

- The referral hospital may consider sending one of its nurses or physician with the transporting ALS ambulance if deemed necessary due to the patient's condition or scope of practice limitations per ICEMA Reference #8010 - Interfacility Transfer Guidelines.

- Do not call 9-1-1 dispatch if the patient requires Critical Care Transport (CCT) or Specialty Care Transport (SCT). The referral hospital must make direct contact with the EMS Providers Dispatch Center.

- Diversion is not permitted except for Internal Disaster. However, to avoid prolonged door-to-intervention times when STEMI, Stroke and Trauma Centers are over capacity, base hospitals may facilitate alternative STEMI, Stroke or Trauma Centers as the best destination for the patient. Base hospitals must ensure physician to physician contact when facilitating the use of an alternate destination.

V. REFERENCES

Number	Name
6070	ST Elevation Myocardial Infarction Critical Care System Designation (San Bernardino County Only)
6100	Stroke Critical Care System Designation (San Bernardino County Only)
8010	Interfacility Transfer Guidelines
8060	Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)
15030	Trauma Triage Criteria

DESTINATION POLICY

I. PURPOSE

To establish standards for the transportation of 9-1-1 patients to the most appropriate receiving facility that has the staff and resources to deliver definitive care to the patient. Destination may be determined by patient's need for specialty care services, example STEMI, Stroke and Trauma centers.

II. POLICY

If the patient's condition is stable, the most appropriate destination may be the facility associated with their healthcare plan and primary care physician.

If a patient requires specialty care services at an ICEMA designated STEMI, Stroke, or Trauma Receiving Center, the EMS provider may bypass closer facilities.

Destination decisions should be based on patient condition or patient, guardian, family or law enforcement request. Patients who are unable to request a destination or who do not have a preference shall be taken to the closest hospital unless their condition requires specialty services described below.

III. GENERAL CONSIDERATIONS

- Closest Hospital
  - All patients requiring immediate medical attention for difficult to manage airways or life threatening conditions.
  - Patients that do not have a destination preference.
- Patient Request
  - Honor patient requests if possible and when appropriate.
  - If patient is medically stable and the destination is not significantly beyond the primary response area of the EMS transportation provider.
  - EMS field personnel must obtain an AMA and notify the base hospital if a patient is in need of STEMI, stroke, or trauma services and refuses transport to a Specialty Care Center, or choses to bypass the recommended Specialty Care Center .

- Higher Level of Care
  - Is dictated by patient condition.
  - ALS providers may bypass a closer facility and transport to a facility that has the capability of to provide appropriate specialty care based on the patient's condition.
- Base Hospital
  - Paramedics are encouraged to contact base hospitals for consult on destination for patients with special considerations.

IV. PSYCHIATRIC HOLDS

- All patients with a medical complaint on a behavioral health hold (5150) require medical evaluation, treatment and shall be transported to the closest acute care hospital for medical clearance.
- Any acute care hospital is capable of medically clearing behavioral health patients.
- Patients on a 5150 hold with no medical complaints or conditions, may be released to law enforcement for transport directly to a behavioral health facility.

V. SPECIALTY CARE CENTERS

- STEMI Receiving Centers: (Refer to ICEMA Reference #11060 - Suspected Acute Myocardial Infraction (AMI)).

  STEMI Receiving Centers are the appropriate destination for identified STEMI patients.
  - Once a patient with a STEMI has been identified, make early STEMI notification to the STEMI Receiving Center and prepare patient for expeditious transport.
  - ROSC patients of unknown or suspected cardiac etiology, regardless of 12-lead ECG reading, should be transported to the closest STEMI Receiving Center. If the closest STEMI Receiving Center is greater than 30 minutes, transportation to the closest receiving hospital may be appropriate.
- STEMI patients with difficult to manage airways shall be transported to the closest receiving hospital.

- Stroke Receiving Centers: (Refer to ICEMA Reference #11110 - Stroke Treatment - Adult (15 years of age and older.)

  - Stroke Receiving Centers are the appropriate destination for suspected stroke patients identified by using the mLAPSS triage criteria and LAMS Score.

  - Prepare the patient for expeditious transport once a positive mLAPSS is identified and LAMS scale has been completed.

  - Notify the Stroke Receiving Center of the patient's pending arrival as soon as possible to allow timely notification of the stroke team.

  - Identified acute stroke patients with "last seen normal" time plus transport time less than 24 hours, or a "wake-up" stroke, transport to closest Stroke Receiving Center.

  - Transport to closest receiving hospital for patients with "last seen normal" time equaling greater than 24 hours. Base hospital may be contacted to assist with the destination decision.

  - Patients with difficult to manage airways shall be transported to the closest receiving hospital.

- Trauma: (Refer to ICEMA Reference #15030 - Trauma Triage Criteria.)

  - Adult patients meeting trauma triage criteria shall be transported to the closest Trauma Center.

  - Pediatric patients meeting trauma triage criteria shall be transported to a pediatric Trauma Center when there is less than a 20 minute difference in transport time between the pediatric Trauma Center and the closest Trauma Center.

  - For patients who meet mechanism of injury criteria per ICEMA Reference #15030 - Trauma Triage Criteria, but have no associated physiologic or anatomic criteria, paramedics are encouraged to contact a trauma base hospital for consultation to determine patient destination. In some cases, trauma base hospital may direct patient to a non-trauma receiving hospital.

  - Make trauma base hospital contact to determine if a Trauma Center should be the destination for patients not meeting the trauma triage criteria but meeting age and/or co-morbid factors.

  - Patients with difficult to manage airways shall be transported to the closest receiving hospital.

- Traumatic cardiac arrest patients with a transport time greater than 15 minutes to a Trauma Center, may be transported to the closest receiving hospital, after consult with a Trauma Base Hospital.

- Burn: (Refer to ICEMA Reference #15030 - Trauma Triage Criteria.)

  - Transport any burn patients who meet trauma triage criteria to the closest Trauma Center.

  - Transport pediatric burn patients that meet trauma triage criteria to a pediatric Trauma Center if transport time is less than 20 minutes.

  - Transport minor and moderate burns to the closest receiving hospital.

  - Transport major burns to the closest burn center if transport time is less than 20 minutes.

  - Transport burn patients with respiratory compromise or at high risk for developing respiratory distress to the closest receiving hospital.

VI. INTERFACILITY TRANSFER (Refer to ICEMA Reference #8010 - Interfacility Transfer Guidelines.)

- Patients will be transported to the designated receiving facility. If the patient's condition deteriorates significantly while en route to the designated facility the patient may be diverted to the closest receiving hospital for stabilization.

- Advanced EMTs and EMT-Ps may initiate protocols prior to contacting the base hospital for change of destination.

VII. EMS AIRCRAFT ROTATION AND DESTINATION (San Bernardino County Only)

- All EMS Aircraft requests from the field in San Bernardino County will be dispatched by the ICEMA designated Aircraft Dispatch Center (ADC).

- The destination may be changed by the EMS providers based on patient requirements for specialty centers.

- Refer to ICEMA Reference #8070 - Aircraft Rotation Policy (San Bernardino County Only).

VIII. REFERENCES

Number	Name
8010	Interfacility Transfer Guidelines
8060	Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)
8070	Aircraft Rotation Policy (San Bernardino County Only)
11060	Suspected Acute Myocardial Infraction (AMI)
11110	Stroke Treatment - Adult
15030	Trauma Triage Criteria

REPORTING INCIDENTS OF SUSPECTED ABUSE POLICY

I. PURPOSE

Prehospital personnel are required to report incidents of suspected neglect or abusive behavior towards children, dependent adults or elders. These reporting duties are individual, and no supervisor or administrator may impede or inhibit such reporting duties and no person making such report shall be subject to any sanction for making such report.

When two or more persons who are required to report are present at scene, and jointly have knowledge of a suspected abuse, and when there is agreement among them, the telephone report may be made by a member of the team selected by mutual agreement and a single written report may be made and signed by the selected member of the reporting team. Any member who has knowledge that the member designated to report has failed to do so, shall thereafter make the report.

Information given to hospital personnel does not fulfill the required reporting mandated from the state. The prehospital caregivers must make their own report.

II. CHILD ABUSE/NEGLECT

Suspicion of child abuse/neglect is to be reported by prehospital personnel by telephone to the Child Abuse Hotline immediately or as soon as possible. Be prepared to give the following information:

- Name of person making report.
- Name of child.
- Present location of child.
- Nature and extent of the abuse/neglect.
- Location where incident occurred, if known.
- Other information as requested.

San Bernardino County: 1-800-827-8724 24-hour number **or** 1-909-384-9233

Inyo County: 1-760-872-1727 M-F 8am - 5pm **or** 911 after hours

Mono County: 1-800-340-5411 M-F 8am - 5pm **or** 1-760-932-7755 after hours

The phone report must be followed within 36 hours by a written report on the "**Suspected Child Abuse Report**" form. Mail this to:

San Bernardino County: CPS
412 W. Hospitality Lane
San Bernardino, CA 92408

Inyo County: CPS
162 Grove St. Suite "J"
Bishop, CA 93514

Mono County: Department of Social Services
PO Box 576
Bridgeport, CA 93517

The identity of any person who files a report shall be confidential and disclosed only between child protective agencies, or to counsel representing a child protection agency, or to the district attorney in a criminal prose.

III. DEPENDENT ADULT AND ELDER ABUSE/NEGLECT

Suspicion of dependent adult and elder abuse/neglect should be reported as soon as possible by telephone. Be prepared to give the following information:

- Name of person making report.
- Name, address and age of the dependent adult or elder.
- Nature and extent of person's condition.
- Other information, including information that led the reporter to suspect either abuse or neglect.

San Bernardino County: 1-877-565-2020 24-hour number

Inyo County: 1-760-872-1727 M-F 8 am - 5 pm **or** 911 after hours

Mono County: 1-800-340-5411 M-F 8 am - 5 pm **or** 1-760-932-7755 after hours

The phone report must be followed by a written report within 48 hours of the telephone report on the "**Report of Suspected Dependent Adult/Elder Abuse**" form. Mail this report to:

San Bernardino County: Department of Aging/Adult Services
784 E. Hospitality Lane
San Bernardino, CA 92415
Fax number 1-909-891-9077

Inyo County: Social Services
162 Grove St. Suite "J"
Bishop, CA 93514

Mono County: Department of Social Services
PO Box 576
Bridgeport, CA 93517

The identity of all persons who report shall be confidential and disclosed only by court order or between elder protective agencies.

San Bernardino County Department of Aging and Adult Services Long-Term Care Ombudsman Program

Ombudsmen are independent, trained and certified advocates for residents living in long-term care facilities. Certified Ombudsmen are authorized by Federal and State law to receive, investigate and resolve complaints made by or on behalf of residents living in skilled nursing or assisted living facilities for the elderly. Ombudsmen work with licensing and other regulatory agencies to support Resident Rights and achieve the best possible quality of life for all long-term care residents. Ombudsman services are confidential and free of charge.

Administrative Office **Receives All Reports of Abuse:** **San Bernardino County Department of Aging and Adult Services** **686 E. Mill St.** **San Bernardino, CA 92415-0640** **909-891-3928 Office** **1-866-229-0284 Reporting** **Fax 909-891-3957**	**The State CRISIS line number:** **1-800-231-4024** **This CRISIS line is available to take calls and refer complaints 24 hours a day, 7 days a week.**

SUSPECTED ACUTE MYOCARDIAL INFARCTION (AMI)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Chest pain (typical or atypical).
- Syncopal episode.
- History of previous AMI, Angina, heart disease, or other associated risk factors.

II. BLS INTERVENTIONS

- Recognition of signs/symptoms of suspected AMI.
- Reduce anxiety, allow patient to assume position of comfort.
- Oxygen as clinically indicated.
- Obtain oxygen saturation.
- May assist patient with self-administration of Nitroglycerin and/or Aspirin.

III. LIMITED ALS (LALS) INTERVENTIONS

- Aspirin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider early vascular access.
- For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, administer 300 ml NS bolus, may repeat.
- Nitroglycerin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider establishing a saline lock enroute on same side as initial IV.
- Complete thrombolytic checklist, if time permits.
- Contact base hospital.

IV. ALS INTERVENTIONS

- Aspirin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider early vascular access.
- For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, administer 300 ml NS bolus, may repeat.
- 12-Lead Technology:
  - Obtain 12-lead ECG. Do not disconnect 12-lead cables until necessary for transport.
  - If signs of inadequate tissue perfusion or if inferior wall infarct is suspected, obtain a right-sided 12-lead (V4R).
  - If right ventricular infarct (RVI) is suspected with signs of inadequate tissue perfusion, consider 300 ml NS bolus, may repeat. Early consultation with base hospital or receiving hospital in rural areas is recommended. (Nitrates are contraindicated in the presence of RVI or hypotension.)
  - With documented ST segment elevation in two (2) or more contiguous leads make early STEMI notification to the STEMI Receiving Center while preparing patient for expeditious transport, refer to ICEMA Reference #6070 - ST Elevation Myocardial Infarction Critical Care System Designation. In Inyo and Mono Counties, the assigned base hospital should be contacted for STEMI consultation.
  - Repeat 12-lead ECG at regular intervals, but do not delay transport of patient. If patient is placed on a different cardiac monitor for transport, transporting provider should obtain an initial 12-lead on their cardiac monitor and leave 12-lead cables in place throughout transport.
  - EMS field personnel shall ensure that a copy of the 12-lead ECG is uploaded or attached as a permanent part of the patient's ePCR.
- Nitroglycerin per ICEMA Reference #7040 - Medication - Standard Orders. Utilize Fentanyl for cardiac chest pain control when Nitroglycerin is contraindicated.

- Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders. Consider concurrent administration of Nitroglycerin with Fentanyl if there is no cardiac chest pain relief from the initial Nitroglycerin administration. Contact base hospital for further Fentanyl orders.

- Consider establishing a saline lock as a secondary IV site.

V. REFERENCES

Number	Name
6070	ST Elevation Myocardial Infarction Critical Care System Designation
7040	Medication - Standard Orders

CARDIAC ARREST - ADULT

High performance (HP) CPR is an organized approach to significantly improve the chance of survival for patients who suffer an out-of-hospital cardiac arrest (OHCA). Return of spontaneous circulation (ROSC) is resumption of sustained perfusing cardiac activity associated with significant respiratory effort after cardiac arrest. Signs of ROSC include breathing, coughing, patient movement and a palpable pulse, or a measurable blood pressure without the use of an automatic compression device.

The principles for HP CPR include:

- Minimize interruptions of chest compressions.
- Ensure proper depth of chest compressions of 2" - 2.5" allowing full chest recoil (no leaning on chest).
- Proper chest compression rate at 100 - 120 per minute.
- Avoid compressor fatigue by rotating compressors every two (2) minutes. Ventilations shall be sufficient to cause minimal chest rise, avoiding hyperventilation as it can decrease survival.

Advanced airways can be safely delayed in OHCA patients until ROSC is achieved if the airway is effectively managed by BLS Interventions. BVM offers excellent oxygenation and ventilation without disrupting high quality compressions.

Base hospital contact is <u>not required</u> to terminate resuscitative measures, if the patient meets criteria set forth below in the Termination of Efforts in the Prehospital Setting.

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting.

II. BLS INTERVENTIONS

- Assess patient, begin HP CPR and maintain appropriate BLS airway measures.
- Place patient on AED, if available. To minimize the "hands off" interval before a rhythm analysis/shock, complete chest compression cycle without an added pause for ventilations or pulse check just before rhythm analysis.

- If shock is advised, perform HP CPR compressions while AED is charging. Remove hands from patient and deliver shock then immediately resume uninterrupted HP CPR for two (2) minutes.

- Do not delay HP CPR for post-shock pulse check or a rhythm analysis.

- After two (2) minutes of HP CPR, analyze rhythm using AED while checking for pulse.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS interventions.

- Establish peripheral intravenous access and administer a 500 ml bolus of normal saline (NS).

- BLS airway with BVM is the airway of choice during active HP CPR.

IV. ALS INTERVENTIONS

- Initiate HP CPR and continue appropriate BLS Interventions while applying the cardiac monitor without interruption to chest compressions.

- Determine cardiac rhythm and defibrillate if indicated. After defibrillation, immediately began HP CPR. Begin a two (2) minute cycle of HP CPR.

- Obtain IV/IO access.

- BLS airways should be maintained during active CPR. Endotracheal intubation is the advanced airway of choice if BLS airway does not provide adequate ventilation. Establish advanced airway per ICEMA Reference #10190 - Procedure - Standard Orders without interruption to chest compressions.

- Utilize continuous quantitative waveform capnography, for the monitoring of patients airway, the effectiveness of chest compressions and for possible early identification of ROSC. Document the waveform and the capnography number in mm HG in the ePCR.

  NOTE: Capnography **shall** be used for all cardiac arrest patients.

- Insert NG/OG tube to relieve gastric distension per ICEMA Reference #10190 - Procedure - Standard Orders.

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- Defibrillate at 360 joules for monophasic or biphasic equivalent per manufacture. If biphasic equivalent is unknown use maximum available.
- Perform HP CPR immediately after each defibrillation for two (2) minutes, without assessing the post-defibrillation rhythm.
- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders every five (5) minutes, without interruption of HP CPR unless capnography indicates possible ROSC.
- Reassess rhythm for no more than ten (10) seconds after each two (2) minute cycle of HP CPR. If VF/VT persists, defibrillate as above.
- After two (2) cycles of HP CPR, consider administering:
  Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders, may repeat.
- If patient remains in pulseless VF/VT after 20 minutes of CPR, consult base hospital.

Pulseless Electrical Activity (PEA) or Asystole

- Assess for reversible causes and initiate treatment.
- Continue HP CPR with evaluation of rhythm (no more than 10 seconds) every two (2) minutes.
- Administer fluid bolus of 300 ml NS IV, may repeat.
- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders every 5 (five) minutes without interruption of HP CPR.

Stable ROSC

- Obtain a 12-lead ECG, regardless of 12-lead ECG reading, transport to the closest STEMI Receiving Center, per ICEMA Reference #8130 - Destination Policy.
- Monitor ventilation to a capnography value between 35 mm Hg and 45 mm Hg.
- Utilize continuous waveform capnography to identify loss of circulation.
- For persistent profound shock and hypotension, administer Push Dose Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.

Termination of Efforts in the Prehospital Setting

- The decision to terminate efforts in the field should take into consideration, first, the safety of personnel on scene, and then family and cultural considerations.

- Consider terminating resuscitative efforts in the field if any of the following criteria are met after 20 minutes of HP CPR with ALS Interventions:

  - No shocks were delivered.

  - Arrest not witnessed by EMS field personnel.

  - No ROSC .

  - Capnography waveform reading less than 15 mm Hg.

  - Persistent asystole, agonal rhythm or pulseless electrical activity (PEA) at a rate of less than 40 bpm.

- If patient has any signs of pending ROSC (i.e., capnography waveform trending upwards, PEA greater than 40 bpm), then consider transportation to a STEMI Receiving Center.

- Contact local law enforcement to advise of prehospital determination of death.

- Provide comfort and care for survivors.

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
8130	Destination Policy
10190	Procedure - Standard Orders
12010	Determination of Death on Scene

STROKE TREATMENT - ADULT

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Patient exhibiting signs/symptoms of a possible stroke. These signs may include: speech disturbances, altered level of consciousness, parasthesias, new onset seizures, dizziness unilateral weakness and visual disturbances.

II. BLS INTERVENTIONS

- Obtain patient oxygen saturation on room air. Titrate oxygen if clinically indicated, to maintain an oxygen saturation of 94% per ICEMA Reference #7040 - Medication - Standard Orders.

- Obtain blood glucose.

III. LIMITED ALS (LALS)/ALS INTERVENTIONS

- Perform activities identified in the BLS Interventions.

- Obtain vascular access.

- **Modified Los Angeles County Prehospital Stroke Screen (mLAPSS)**: A screening tool used by EMS field personnel to assist in identifying patients who may be having a stroke.

  mLAPSS Criteria: The patient is **mLAPSS positive**, if "yes" on Criteria #1 - 4 and exhibits unilateral weakness on Criteria #6.

mLAPSS Criteria	**Yes**	**No**	
1. Age over 17 years?			
2. No prior history of seizure disorder?			
3. New onset of neurologic symptoms in last 24 hours?			
4. Patient was ambulatory at baseline prior to event?			
5. Blood glucose between 60 and 400?			
6. Exam (*look for obvious asymmetry):*	Normal- Bilaterally	Right	Left
• Facial Smile/Grimace	☐	☐ Droop ☐ Normal	☐ Droop ☐ Normal
• Grip	☐	☐ Weak Grip ☐ Normal	☐ Weak Grip ☐ Normal
	☐	☐ No Grip ☐ Normal	☐ No Grip ☐ Normal

• Arm Weakness	□	□ Drifts Down □ Normal	□ Drifts Down □ Normal
		□ Falls Down Rapidly □ Normal	□ Falls Down Rapidly □ Normal

- If patient is mLAPSS positive, use LAMS to determine the stroke severity.

- **Los Angeles Motor Score (LAMS)**: A scoring tool used by EMS providers to determine the severity of stroke on patients who are mLAPSS positive. If the total LAMS score is four (4) or greater, consider Large Vessel Occlusion (LVO).

LAMS Score Criteria		
FACE	0	Both sides move normally
	1	One side is weak or flaccid
ARM	0	Both sides move normally
	1	One side is weak
	2	One side is flaccid/does not move
GRIP	0	Both sides move normally
	1	One side is weak
	2	One side is flaccid/does not move
TOTAL SCORE		

- Ask when "last seen normal" or without stroke symptoms.

- If "last seen normal" plus transport time is less than 24 hours, or a "wake-up stroke", transport to closest Stroke Receiving Center.

- If "last seen normal" plus transport time is greater than 24 hours, transport to the closest receiving hospital.

- If mLAPSS negative and stroke is still suspected, consult base hospital for destination.

- To ensure that there is no delay in treatment obtain and document on scene family phone number.

  - If family member is not present, it is recommended that the EMS field personnel bring the patients cell phone.

- Consider 12-lead ECG (ALS only).

- **Thrombolytic Assessment**: If time is available, and the patient or family can provide the information, assess the patient using the criteria listed below and report to ED personnel:

Thrombolytic Assessment Criteria	**Yes**	**No**
Onset greater than 4.5 hours?		
History of recent bleeding?		
Use of anticoagulant?		
Major surgery or serious trauma in the previous 14 days?		
Sustained systolic blood pressure above 185 mm Hg?		
Recent stroke or intracranial hemorrhage?		

IV. REFERENCE

Number	**Name**
7040	Medication - Standard Orders

PAIN MANAGEMENT - ADULT

I. PURPOSE

To define the prehospital use of analgesics for pain management to patients with moderate to severe pain.

II. FIELD ASSESSMENT/TREATMENT INDICATORS

The prehospital use of analgesics should be considered for the following patients who have a Glasgow Coma Score (GCS) of 15 or at a baseline mentation and have a pain score of five (5) or higher on a scale of 1 - 10:

- Acute traumatic injuries
- Acute abdominal/flank pain
- Burn injuries
- Cancer pain
- Sickle Cell Crisis

Special consideration must be given to the type of pain, the patient's overall condition, allergies, current medical conditions, and drug contraindications when deciding if pain management is appropriate and which pain medication to be administered.

III. BLS INTERVENTIONS

- Attempt to calm, reduce anxiety, and allow patient to assume position of comfort.
- Utilize ice, immobilize and splint the affected area as indicated.
- Assess patients level of pain using the pain scale from 1 - 10 with 10 being the worst pain.
- Administer oxygen as clinically indicated per ICEMA Reference # 9010 - General Patient Guidelines.

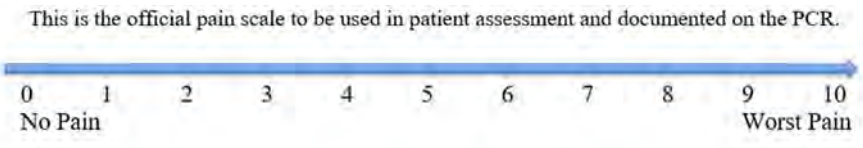
IV. ALS INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Consider early vascular access.
- Place on cardiac monitor. Obtain capnography, monitoring waveform and numerical value.
- Monitor and assess patient vital signs prior to administration of any analgesic.
- For treatment of pain as needed with a blood pressure of greater than 100 systolic:
  - Fentanyl per ICEMA Reference # 7040 - Medication - Standard Orders, **or**
  - Ketamine per ICEMA Reference # 7040 - Medication - Standard Orders.
- For treatment of pain as needed with a blood pressure less than 100 systolic:
  - Ketamine per ICEMA Reference # 7040 - Medication - Standard Orders.
- After administration of any pain medication, continuous monitoring of patients ECG and capnography is required.
- Reassess and document vital signs, capnography, and pain scores every five (5) minutes.

V. SPECIAL CONSIDERATIONS

- Once a pain medication has been administered via route of choice, changing route (i.e., from IM to IV) requires base hospital order.
- Shifting from one analgesic while treating a patient requires base hospital contact.

Pain management should only be considered for patients that have a pain score of five (5) or higher on the below scale of 1 - 10.



VI. REFERENCES

Number	Name
7040	Medication - Standard Orders
9010	General Patient Guidelines

DETERMINATION OF DEATH ON SCENE

I. PURPOSE

To identify situations when an EMT, AEMT or EMT-P may be called upon to determine death on scene.

II. POLICY

An EMT, AEMT or EMT-P may determine death on scene if **pulselessness and apnea** are present with any of the following criteria. The EMT-P is authorized to discontinue BLS CPR initiated at scene if a patient falls into the category of obvious death. In any situation where there may be doubt as to the clinical findings of the patient, BLS CPR must be initiated and the base hospital contacted. When death is determined, the County Coroner must be notified along with the appropriate law enforcement agency.

III. DETERMINATION OF DEATH CRITERIA

- Decomposition.
- Obvious signs of rigor mortis such as rigidity or stiffening of muscular tissues and joints in the body, which occurs any time after death and usually appears in the head, face and neck muscles first.
- Obvious signs of venous pooling in dependent body parts, lividity such as mottled bluish-tinged discoloration of the skin, often accompanied by cold extremities.
- Decapitation.
- Incineration of the torso and/or head.
- Massive crush injury.
- Penetrating injury with evisceration of the heart, and/or brain.
- Gross dismemberment of the trunk.

IV. SPECIAL CONSIDERATIONS

- A copy of the patient care report must be made available for the Coroner. This will be transmitted to them, when posted, if the disposition is marked "Dead on Scene" and the Destination is marked "Coroner, San Bernardino County" on the electronic patient care report (ePCR).

- The completed ePCR must be posted to the Coroner before the end of the shift.

- If unable to post, the use of an approved paper patient care report as a "downtime" form is permitted by ICEMA Reference #2040 - Requirements for Patient Care Reports.

LIMITED ALS (LALS) PROCEDURE

- All terminated LALS resuscitation efforts must have an AED event record attached to the ePCR.

ALS PROCEDURE

- All patients in ventricular fibrillation should be resuscitated on scene until ROSC is achieved. If patient remains in VF/VT after 20 minutes of CPR, consult base hospital.

- Severe blunt force trauma, pulseless, without signs of life (palpable pulses and/or spontaneous respirations) and cardiac electrical activity less than 40 bpm or during EMS encounter with the patient meets Determination of Death criteria. All terminated ALS resuscitation efforts must have an ECG attached to the patient care report.

- Consider termination of resuscitation efforts in the prehospital setting if any of the criteria are met in the ICEMA Reference #11070 - Cardiac Arrest - Adult.

V. SUSPECTED SUDDEN INFANT DEATH SYNDROME (SIDS) INCIDENT

It is imperative that all EMS field personnel be able to assist the caregiver and local police agencies during a suspected SIDS incident.

PROCEDURE

- Follow individual department/agency policies at all times.

- Ask open-ended questions about incident.

- Explain what you are doing, the procedures you will follow, and the reasons for them.

- If you suspect a SIDS death, explain to the parent/caregiver what SIDS is and, if this is a SIDS related death nothing they did or did not do caused the death.

- Provide the parent/caregiver with the number of the California SIDS Information Line: **1-800-369-SIDS (7437)**

- Provide psychosocial support and explain the emergency treatment and transport of their child.

- Assure the parent/caregiver that your activities are standard procedures for the investigation of all death incidents and that there is no suspicion of wrongdoing.

- Document observations.

VI. REFERENCES

Number	Name
11070	Cardiac Arrest - Adult
12020	End of Life Care and Decisions
13030	Cold Related Emergencies

CARDIAC ARREST - PEDIATRIC
(Less than 15 years of age)

High performance (HP) CPR is an organized approach to significantly improve the chance of survival for patients who suffer an out-of-hospital cardiac arrest (OHCA). Return of spontaneous circulation (ROSC) is resumption of sustained perfusing cardiac activity associated with significant respiratory effort after cardiac arrest. Signs of ROSC include breathing, coughing, patient movement and a palpable pulse, or a measurable blood pressure without the use of an automatic compression device.

The principles for HP CPR include:

- Minimize interruptions of chest compressions.
- Compression rate shall be between of 100 - 120 per minute allowing full chest recoil at a depth of at least one-third (1/3) the anteroposterior diameter of the chest until the age of puberty.
- Avoid compressor fatigue by rotating compressors every two (2) minutes.
- Avoid hyperventilation as it can decrease survival.
- Ventilate at a rate of 12 - 20 per minute. Ventilation rate decreases as patient age increases. Volumes shall be the minimum necessary to cause chest rise.

Advanced airways can be safely delayed in OHCA patients until ROSC is achieved if the airway is effectively managed by BLS Interventions. BVM offers excellent oxygenation and ventilation without disrupting high quality compressions.

Whenever possible, provide family members with the option of being present during the resuscitation of an infant or a child. For any termination of efforts, base hospital contact is required.

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting. Consider the potential causes of arrest for age.

II. BLS INTERVENTIONS

- Assess patient, begin HP CPR, and maintain appropriate BLS airway measures.
- If available, utilize AED for patients one (1) year of age or older. To minimize the "hands off" interval before a rhythm analysis/shock, complete chest compressions cycle, without an added pause for ventilations or pulse check just before rhythm analysis.

- If shock is advised, perform HP CPR compressions while AED charging. Remove hands from patient and deliver shock then immediately resume uninterrupted HP CPR for two (2) minutes.

- Do not delay HP CPR for post-shock pulse check or a rhythm analysis.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.

- Initiate HP CPR while applying the AED.

- Obtain IO/IV access (IO is preferred for under nine (9) years of age).

- For continued signs of inadequate tissue perfusion, administer fluid bolus of NS. Reassess after each bolus. May repeat two (2) times for continued signs of inadequate tissue perfusion.

  - 1 day to 8 years: 20 ml/kg NS

  - 9 to 14 years: 300 ml NS

IV. ALS INTERVENTIONS

- Initiate HP CPR and continue appropriate BLS Interventions while applying the cardiac monitor without interruption to chest compressions.

- Determine the cardiac rhythm and defibrillate at 2 j/kg (or manufacturer's recommended equivalent) if indicated. After defibrillation, immediately resume HP CPR. Begin a two (2) minute cycle of HP CPR.

- Obtain IO/IV access (IO is preferred).

- Utilize continuous quantitative waveform capnography, for monitoring of patients airway, the effectiveness of chest compressions and for early identification of ROSC. Document the waveform and the capnography number in mm Hg in the ePCR.

- Continue with BLS airway management ensuring adequate ventilations. BLS airways should be maintained during active CPR.

- Endotracheal intubation is the advanced airway of choice if BLS airway does not provide adequate ventilation. Endotracheal intubation may only be performed on patients who are taller than maximum length of a pediatric emergency measuring

tape (Broselow, etc.) or equivalent, measuring from the top of the head to the heel of the foot per ICEMA Reference #10190 - Procedure - Standard Orders.

NOTE: Capnography **shall** be used for all cardiac arrest patients.

- Insert NG/OG tube per ICEMA Reference #10190 - Procedure - Standard Orders.

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- Initial defibrillation is administered at 2 j/kg (or manufacturer's recommended equivalent). Second defibrillation is administered at 4 j/kg. Third and subsequent defibrillation attempts should be administered at 10 j/kg not to exceed the adult dose.

- Perform HP CPR immediately after each defibrillation for two (2) minutes without assessing the post-defibrillation rhythm.

- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders every five (5) minutes, without interruption of HP CPR, unless capnography indicates possible ROSC.

- Reassess rhythm for no more than 10 seconds after each two (2) cycles of HP CPR. If VF/VT persists, defibrillate as indicated above.

- After two (2) cycles of HP CPR, consider administering Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders, may repeat.

- If patient remains in pulseless VF/VT after 20 minutes of HP CPR, consult base hospital.

Pulseless Electrical Activity/Asystole

- Assess for reversible causes and initiate treatment.

- Continue HP CPR with evaluation of rhythm (no more than 10 seconds) every two (2) minutes.

- Administer initial fluid bolus of 20 ml/kg NS for all ages, may repeat at:

  - 1 day to 8 years: 20 ml/kg NS

  - 9 to 14 years: 300 ml NS

- Administer Epinephrine, per ICEMA Reference #7040 - Medication - Standard Orders every five (5) minutes without interruption of HP CPR.

Stable ROSC

- Obtain a 12-lead ECG, upload and document then transport to the closest receiving hospital.
- Utilize continuous waveform capnography, to identify loss of circulation.
- Obtain blood glucose level. If indicated administer:
  - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
  - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.
- For suspected opiate overdose, administer Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.
- For continued signs of shock and hypotension with SBP of less than 70 mm Hg **after** successful resuscitation administer Push Dose Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.
- Base hospital physician may order additional medications or interventions as indicated by patient condition.

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
10190	Procedure - Standard Orders

NEWBORN CARE

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Field delivery with or without complications.

II. BLS INTERVENTIONS

- When head is delivered, suction mouth then the nose, and check to see that cord is not around baby's neck.
- Dry infant and provide warm environment. Prevent heat loss (remove wet towel).
- Place baby in supine position at or near the level of the mother's vagina. After pulsation of cord has ceased double clamp cord at approximately seven (7) inches and ten (10) inches from baby and cut between clamps.
- Maintain airway, suction mouth and nose.
- Provide tactile stimulation to facilitate respiratory effort.
- Assess breathing if respirations less than 20 or gasping, provide tactile stimulation and assisted ventilation if indicated.
- Circulation:
  - Heart Rate less than 100 ventilate BVM with 100% oxygen for 30 seconds and reassess. If heart rate is still less than 100 /minute but greater than 60, reevaluate BVM and reposition airway.
  - If heart rate is less than 60 bpm after above interventions, begin compressions with ventilations at a 3:1 ratio (approximately 100 compressions and 30 ventilations /minute).
- If central cyanosis is present, utilize supplemental oxygen at 10 to 15 L /minute using oxygen tubing close to infant's nose and reassess. If no improvement is noted after 30 seconds assist ventilation with BVM.
- Obtain Apgar scoring at one (1) and five (5) minutes. Do not use Apgar to determine need to resuscitate.

APGAR SCORE

SIGN	0	1	2
Heart Rate	Absent	Less than 100 /minute	More than 100 /minute
Respirations	Absent	Less than 20 /irregular	More than 20 /crying
Muscle Tone	Limp	Some Flexion	Active Motion
Reflex Irritability	No Response	Grimace	Cough or Sneeze
Color	Blue or pale	Blue Extremities	Completely Pink

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Obtain vascular access via IV if indicated.
- Obtain blood glucose by heel stick.
  - If blood glucose less than 35 mg/dL, administer Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- Obtain vascular access via IV/IO if indicated.
- If BVM is ineffective or tracheal suctioning is required, utilize waveform capnography to assess efficacy of compressions and ventilations. Place orogastric tube.
- Obtain blood glucose by heel stick.
  - If blood glucose less than 35 mg/dL, administer Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
- Evaluate airway for hypoxemia and assess body temperature for hypothermia then consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders, if heart rate less than 60 after one (1) minute.
- Contact base hospital if hypovolemia is suspected. Base hospital may order 10 ml/kg IV NS over five (5) minutes. If unable to contact base hospital and transport time is extended, administer 10 ml/kg IV NS over five (5) minutes, may repeat.

- For persistent hypotension despite adequate ventilation and fluid resuscitation, base hospital may order Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders, every ten (10) minutes. If unable to contact base hospital and transport time is extended, give indicated dosage and contact base hospital as soon as possible.

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
10190	Procedure - Standard Orders

SPECIALTY AND OPTIONAL SCOPE PROGRAM APPROVAL

I. PURPOSE

To provide guidelines for the application and renewal of advanced life support (ALS) or basic life support (BLS) specialty or optional scope of practice programs.

II. DEFINITIONS

Public Safety AED Service Provider: A specialty program for public safety personnel. (See ICEMA Reference #16060 - Public Safety AED Service Provider.)

Emergency Medical Dispatch (EMD) Program: The reception, evaluation, processing and provision of dispatch life support; management of requests for emergency medical assistance; ongoing evaluation and improvement of the emergency medical dispatch process. (See ICEMA Reference #6120 - Emergency Medical Dispatch Center Requirements.)

Mobile Medic Specialty Program: A specialty program that utilizes boats, bicycles, motorcycles, golf carts and/or powered all-terrain vehicles or for ALS or BLS response designed to deliver EMT, AEMT, and/or EMT-P to the scene of injury and/or transport a patient from the scene of injury to other awaiting EMS units.

Optional Scope Program: Any EMT/AEMT/EMT-P program that may require approval from the ICEMA Medical Director to function outside of the basic scope of practice that is not initiated region-wide.

Specialty Program: Any program that may require approval from the ICEMA Medical Director to function due to regulations or any variance from standard ICEMA policies or protocols either in equipment or procedures.

Tactical Medicine for Special Operations: A specialty program that meets all the prerequisites established by POST/EMSA for the delivery of emergency medical care during law enforcement special operations. (See ICEMA Reference #6110 - Tactical Medicine for Special Operations.)

III. POLICY

- All providers interested in providing ALS specialty or EMT optional scope programs shall submit an application that will undergo a review process to determine eligibility.

- All specialty programs must submit a new application and be approved every two (2) years.

- All local optional scope programs must submit a new application and be approved at least every three (3) years or concurrently with State approval of the ICEMA Local Optional Scope of Practice whichever is sooner.

- An electronic patient care report (ePCR) must be initiated whenever contact is made with a patient. Patients refusing care or declining further care after treatment must sign a refusal of care and/or Against Medical Advice form.

- If paper downtime forms are utilized, EMS providers are required to submit an approved ePCR by the end of shift or within 24 hours of the close of the event (whichever is less).

- Radio communication failure protocols will not be used. Prior to base contact protocols will be followed. If further treatment is needed, radio contact with the base hospital should be established as soon as possible.

- All ePCRS utilizing a specialty program will be reviewed by the EMS provider as part of its Continuous Quality Improvement program. Review or submission of additional criteria may be required.

- EMS field personnel must accompany the patient to the hospital if utilizing optional scope medications or devices that the transporting EMS field personnel are not authorized to use.

IV. PROCEDURE FOR SPECIALTY AND OPTIONAL SCOPE PROGRAM APPROVAL

- Submit an original application to ICEMA indicating the type of program. The Specialty and Optional Scope Program Approval Application is available on the ICEMA website at ICEMA.net.

- Submit a copy of the proposed or renewal program which shall include:

  - A statement demonstrating a need for the program.

  - A description of the geographic area within which the specialty program will be utilized.

  - A detailed description of the operation of the program, ~~(i.e.~~such as special events, 24/7~~)~~ and how the program will be implemented.

  - A description of how the program will interface with the EMS system and 9-1-1.

- A detailed description of the training program. For optional scope programs, include provisions for written test and demonstration of skills competencies.

- A detailed list of employees participating in this program. If there are changes in employees, ICEMA must be notified in writing within 10 days.

- A detailed description of any deviations from the Standard Drug and Equipment List, how equipment and drugs will be stored and/or transported and a program for maintenance of the equipment.

- A process for the reporting of any deviations or adverse events.

- A quality improvement plan or an amendment to the EMS providers' Quality Improvement Plan that describes the quality improvement process for the specialty program. The plan must comply with all provisions of the ICEMA Quality Improvement~~Management~~ Plan and include provisions for 100% review of all patient care reports in which the specialty or optional scope program was attempted or utilized. ~~ICEMA may require the collection and submission of additional criteria as necessary.~~

- ICEMA may require the collection and submission of additional criteria as necessary.

- Additional procedures for Mobile Medic Specialty Programs:

  - A statement indicating compliance with Department of Motor Vehicles rules for personal safety equipment and/or vehicle registration if applicable.

  - A list of type of vehicles utilized (bicycles, motorcycles, ATV).

  - Type of interim patient care report ~~(PCR)~~ utilized and process for transfer of patient care documents in the field.

  - Type of communication devices utilized and the interface with ALS provider and transport.

- Additional procedures for EMT King Airway Optional Skills Program:

  - Authorization for EMTs to practice optional skills is limited to those whose certificate is active and who are employed by~~within~~ an~~the~~ ICEMA ~~region by an~~ authorized EMS provider.

  - Training in the use of perilaryngeal airway adjuncts must~~to~~ include not less than five (5) hours with skills competency demonstration

every one (1) year for certified~~accredited~~ EMTs in ~~continuing~~approved optional skills programs.

- Comply with state regulations for EMT optional skills training and demonstration of competency.

- Additional procedures for Impedance Threshold Device (ITD) Specialty Programs:

  - Prior to deployment and utilization of ITDs, providers must demonstrate high performance compression fraction of at least 80% without the use of an automatic compression device either through retrospective or concurrent audits for six (6) months.

  - ITD must be used in conjunction with high performance CPR and may be used with automatic compression devices.

  - Submit initial/renewal course outline for approval to include:

    - Indications for use and when to remove the device for both basic and advanced airways.
    - Use of two-person bag-valve-mask ventilation when used in the absence of an advanced airway to ensure adequate seal to maintain the intended effect of the device.
    - Use in conjunction with high performance CPR, keeping compression rates between 100 - 120 per minute.

- Additional procedures for Local Optional Scope programs:

  - Authorization for EMTs or EMT-Ps to practice optional skills is limited to those whose certificate or license is active and who are employed by~~within~~ an~~the~~ ICEMA ~~region by an~~ authorized EMS provider.

  - Initial training to include not less than five (5) hours with skills competency demonstration once every one (1) year.

  - Comply with State regulations for optional skills training and demonstration of competency.

~~V. PROCEDURES FOR SPECIALTY PROGRAMS~~

- ~~A patient care report must be initiated whenever contact is made with a patient. Patients refusing care or declining further care after treatment must sign a refusal of care and/or Against Medical Advise form.~~

- ~~If paper forms are utilized, EMS providers are required to submit an approved electronic patient care report (ePCR) by the end of shift or within 24 hours of the close of the event (whichever is less).~~

- ~~Radio communication failure protocols will not be used. Prior to base contact protocols will be followed. If further treatment is needed, radio contact with the base hospital should be established as soon as possible.~~

- ~~All patient care reports utilizing a specialty program will be reviewed by the EMS provider as part of their Continuous Quality Improvement program. Review of additional criteria may be required.~~

V~~I~~. DRUG AND EQUIPMENT LISTS

- Equipment and supplies carried and utilized by specialty program personnel shall be consistent and compatible with the drugs and equipment normally carried by ALS units.

- Equipment and supplies shall be based on the appropriate level of personnel utilized for the particular event.

VI~~I~~. REFERENCES

Number	Name
6110	Tactical Medicine for Special Operations
6120	Emergency Medical Dispatch Center Requirements
16060	Public Safety AED Service Provider

~~CARDIOVASCULAR~~ ST ELEVATION MYOCARDIAL INFARCTION CRITICAL CARE SYSTEM ~~RECEIVING CENTERS~~ DESIGNATION ~~POLICY~~ *(San Bernardino County Only)*

I. PURPOSE

To establish standards for the designation of an acute care hospital as a ~~A Cardiovascular~~ ST Elevation Myocardial Infarction (STEMI) Receiving Center. ~~(SRC) will be the preferred destination for patients who access the 9-1-1 system meeting the defined criteria and show evidence of a STEMI on a 12-lead electrocardiogram (ECG). These patients will benefit from rapid interventions via cardiac catheterization interventions.~~

II. POLICY

Hospital requirements for Inland Counties Emergency Medical Agency (ICEMA) STEMI Receiving Center designation: ~~The following requirements must be met for a hospital to be designated receiving as a SRC by ICEMA:~~

- Must be a full service general acute care hospital approved by~~An~~ ICEMA as ~~approved~~ a 9-1-1 receiving hospital. ~~which is a full service general acute care hospital.~~
- Must have a l~~L~~icensure as a Cardiac Catheterization Laboratory (Cath Lab).
- Must be accredited by the American College of Cardiology (ACC) as a Chest Pain Center with Primary Percutaneous Coronary Intervention (PCI).
- ~~Intra-aortic balloon pump capability.~~
- Must have a Cardiovascular surgical services permit.
- Must be in compliance with all requirements listed in the California Code of Regulations, Title 22, Division 9, Chapter 7.1, STEMI Critical Care System Regulations.
- ~~An alert/communication system for notification of incoming STEMI patients, available twenty-four (24) hours per day, seven (7) days per week (i.e., in-house paging system).~~
- ~~Provide continuing education (CE) opportunities twice per year for emergency medical services (EMS) field personnel in areas of 12-lead ECG acquisition and interpretation, as well as assessment and management of STEMI patients.~~

III. STAFFING REQUIREMENTS

The hospital will have the following positions filled prior to becoming a STEMI Receiving Center~~SRC~~:

- Medical Directors

  The hospital shall designate two (2) physicians as co-directors who are responsible for the medical oversight and ongoing performance of the STEMI Receiving Center program.~~of its STEMI receiving center SRC program~~. One (1) physician shall be a board certified interventional cardiologist with active Percutaneous Coronary Intervention (PCI) privileges. The co-director shall be a board certified emergency medicine physician with active privileges to practice in the emergency department.

- STEMI Program Manager~~Nursing Coordinator~~

  The hospital shall designate a qualified STEMI Program Manager. ~~SRC Nursing Coordinator who is~~ This individual is responsible for monitoring and evaluating the care of STEMI patients, the coordination of performance improvement and patient safety programs for the STEMI critical care system in conjunction with the STEMI medical director. ~~This includes participation in performance improvement and patient safety programs related to a STEMI critical care system.~~ The STEMI Program Manager must be trained or certified in c~~C~~ritical c~~C~~are nursing or have at least two (2) years dedicated STEMI patient management experience.

- On-Call Physician Consultants and Staff

  On-call physicians consultants and staff must be promptly available within 30 minutes from notification. A daily roster must include ~~of~~ the following on-call physician consultants and staff: ~~that must be promptly available within thirty (30) minutes of notification.~~

  - Interventional Cardiologist with ~~PCI~~ privileges in PCI procedures.
  - Cardiovascular Surgeon with privileges in Coronary Artery Bypass Grafting.
  - ~~Cardiac Catheterization~~Cath Laboratory Team.
  - Intra-aortic balloon pump nurse or technologist.

- Registrar

  To ensure accurate and timely data submission, hospitals must have a dedicated registrar to submit required data elements.

- Depending on the volume this position may be shared between specialty cares.

- Failure to submit data as outlined above, may result in probation, suspension, fines or rescission of STEMI Receiving Center Designation.

~~• Emergency Department Liaison Nurse~~

~~The non-base hospital shall designate an SRC Emergency Department Liaison Nurse who has a minimum of two (2) years emergency department experience to facilitate communication and education between the Cath Lab, emergency department and EMS field personnel.~~

IV. INTERNAL STEMI RECEIVING CENTER~~HOSPITAL~~ POLICIES

The STEMI Receiving Center must have:

- The capability to provide STEMI patient care 24 hours per day, seven (7) days per week.

- A single call alert/communication system for notification of incoming STEMI patients, available 24 hours per day, seven (7) days per week (i.e., in-house paging system).

- A process for the treatment and triage of simultaneously arriving STEMI patients.

- A fibrinolytic therapy protocol to be used only in unforeseen circumstances when PCI of a STEMI patient is not possible.

- Prompt acceptance of STEMI patients from STEMI Referral Hospitals that do not have PCI capability. To avoid prolonged door to intervention time the STEMI base hospitals are allowed to facilitate redirection of STEMI patients to nearby STEMI receiving centers Physician to physician contact must be made when redirecting patients.

- Acknowledgement that STEMI patients may **only** be diverted during the times of Internal Disaster in accordance to ICEMA Reference #8060 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).

~~The hospital shall develop internal policies for the following situations:~~

- ~~Fibrinolytic therapy protocol to be used only in unforeseen circumstances when PCI of a STEMI patient is not possible.~~

~~Acknowledgement that STEMI patients may **only** be diverted during the times of Internal Disaster in accordance to ICEMA Reference #8060 – Requests for Hospital Diversion Policy (San Bernardino County Only) (applies to physical plant breakdown threatening significant patient services or immediate patient safety issues, i.e., bomb threat, earthquake damage, hazardous material or safety and security of the hospital). A written notification describing the event must be submitted to ICEMA within twenty-four (24) hours.~~

- ~~Prompt acceptance of STEMI patients from other SRHs that do not have PCI capability. STEMI diversion is not permitted except for internal disaster. Refer to ICEMA Reference #8120 – Continuation of Care (San Bernardino County Only). However, STEMI base hospitals are allowed to facilitate redirecting of STEMI patients to nearby SRCs when the closest SRC is over capacity to avoid prolonged door to intervention time. SRC and base hospitals shall ensure physician to physician contact when redirecting patients.~~

- ~~Cath Lab Team activation policy which requires immediate activation of the team upon EMS notification when there is documented STEMI patient en route to the SRC, based on machine algorithm interpretation.~~

V. DATA COLLECTION

All required data elements shall be collected and entered in an ICEMA approved STEMI registry on a regular basis and submitted to ICEMA for review. All hospitals including STEMI receiving centers must participate in Cardiac Arrest Registry to Enhance Survival (CARES).

VI. CONTINUOUS QUALITY IMPROVEMENT (CQI) PROGRAM

STEMI Receiving Centers ~~SRC~~ shall develop an on-going CQI program which monitors all aspect of treatment and management of suspected STEMI patients and identify areas needing improvement. The program must, at a minimum, monitor the following parameters:

- Morbidity and mortality related to procedural complications.

- Detail review of cases requiring emergent rescue Coronary Artery Bypass Graph (CABG).

- Tracking of door-to-dilation time and adherence to minimum performance standards set by ICEMA policy, contractual agreement, California Regulations, and the ACC ~~this policy~~.

- Detailed review of cases requiring redirection of EMS STEMI patients to other STEMI Receiving Centers ~~SRCs~~ as a result of ~~SRC~~ over capacity and prolonged delay of door-to-intervention time.

- Active participation in each ICEMA STEMI CQI Committee and STEMI regional peer review process. This will include a review of selected medical records as determined by CQI indicators and presentation of details to peer review committee for adjudication.

- Provide Continuing Education (CE) opportunities twice per year for emergency medical services (EMS) field personnel in areas of 12-lead ECG acquisition and interpretation, as well as assessment and management of STEMI patients.

- Programs in place to promote public education efforts specific to cardiac care.

VII. PERFORMANCE STANDARD

Designated STEMI Receiving Centers must comply with the California Code of Regulations, Title 22, Division 9, Chapter 7.1, STEMI Critical Care System, ICEMA policies, and the ACC performance measures, that exist and may change in the future.~~SRCs must achieve and maintain a door-to-balloon (D2B) time of less than or equal to ninety (90) minutes in 75% of primary PCI patients with a STEMI, in accordance with D2B: An Alliance for Quality Guidelines. If this standard is not achieved, the SRC may be required to submit an improvement plan to ICEMA addressing the deficiency with steps being taken to remedy the problems.~~

VIII. DESIGNATION

- The STEMI Receiving Center ~~SRC~~ applicant shall be designated after satisfactory review of written documentation, ~~and~~ a potential ~~n initial~~ site survey by ICEMA, ~~or its designees and~~ and completion of a board approved agreement between the STEMI Receiving Center~~hospital~~ and ICEMA.

- ~~Accreditation by the Society of Cardiovascular Patient Care.~~

- Initial designation as a STEMI Receiving Center ~~SRC~~ shall be in accordance with terms outlined in the agreement.

- Failure to comply with the approved agreement, or ICEMA policy ~~criteria and performance standards outlined in this policy~~ may result in probation, suspension, fines or rescission of STEMI Receiving Center ~~SRC~~ designation.

IX. REFERENCES

Number	Name
8060	Requests for Ambulance Redirection and Hospital Diversion ~~Policy~~ (San Bernardino County Only)
8120	Continuation of Care (San Bernardino County Only)

~~NEUROVASCULAR~~ STROKE ~~RECEIVING CENTERS~~ CRITICAL CARE SYSTEM DESIGNATION ~~POLICY~~

(San Bernardino County Only)

I. PURPOSE

To establish standards for the designation of an acute care hospital as a Stroke Receiving Center.~~To provide developing guidelines to rapidly transport stroke patients who access the 9-1-1 system .to a designated Neurovascular Stroke Receiving Center (NSRC) when indicated. Patients transported to NSRC will benefit from rapid assessment, intervention and treatment at a dedicated stroke specialty center. Patients will meet the defined criteria for triage as an acute ischemic or hemorrhagic cerebral vascular event.~~

II. POLICY

Hospital requirements for Inland Counties Emergency Medical Agency (ICEMA) Stroke Receiving Center designation: ~~The following requirements must be met for a hospital to be an ICEMA designated NSRC:~~

- Must be a full service general acute care hospital approved by ICEMA as a 9-1-1 receiving hospital~~An ICEMA approved receiving hospital which is a full service general acute care hospital~~.
- Must have certification as an Acute Ready, Primary, Thrombectomy Capable, or Comprehensive Stroke Center by The Joint Commission (TJC), Healthcare Facilities Accreditation Program (HFAP), or Det Norske Veritas (DNV) and proof of re-certification every two (2) years. ~~Accreditation as a Primary Stroke Center by TJC or HFAP and proof of re-accreditation every two (2) years.~~
- Must be in compliance with all requirements listed in the California Code of Regulations, Title 22, Division 9, Chapter 7.2, Stroke Critical Care System for the requested level of designation.
- ~~An alert/communication system for notification of incoming stroke patients, available twenty-four (24) hours per day, seven (7) days per week (i.e., in-house paging system).~~
- ~~Provide continuing education (CE) opportunities twice per year for NSRC, NSRH and emergency medical services (EMS) field personnel in areas of pathophysiology, assessment, triage and management for stroke patients and report annually to ICEMA.~~
- ~~Lead public stroke education efforts at the appropriate educational level and report annually to ICEMA.~~

III. STAFFING REQUIREMENTS

The hospital will have the following positions filled for all levels of designation prior to becoming a Stroke Receiving Center. ~~NSRC:~~

- Medical Directors

  The hospital shall designate two (2) physicians with hospital privileges as co-directors who are responsible for the medical oversight and ongoing performance of the Stroke Receiving Center program.~~of its NSRC program.~~ One (1) physician shall be board certified or board eligible by the American Board of Medical Specialties or American Osteopathic Association, neurology or neurosurgery board. The co-director shall be a board certified or board eligible emergency medicine physician.

- Stroke Program Manager~~Nursing Coordinator~~

  The hospital shall designate a qualified Stroke Program Manager. This individual is responsible for monitoring and evaluating the care of Stroke patients, the coordination of performance improvement and patient safety programs for the Stroke critical care system in conjunction with the Stroke medical director. The Stroke Program Manager must be trained or certified in critical care nursing or have at least two (2) years dedicated to Stroke patient management experience.~~The hospital shall designate a NSRC Nursing Coordinator who has experience in critical care or emergency nursing, and has advanced education in stroke physiology or at least has two (2) years dedicated stroke patient management experience. Certification in critical care or emergency nursing is preferred.~~

- On-Call Physicians Specialists/Consultants

  On-Call physicians consultants and staff must be promptly available within 30 minutes from notification. A daily roster must include ~~of~~ the following on-call physician consultants and staff: ~~must be promptly available within thirty (30) minutes of notification of "Stroke Alert" twenty-four (24) hours per day, seven (7) days per week.~~

  - Radiologist experienced in neuroradiologic interpretations.

  - On-call Neurologist and /or tele-neurology services available twenty-four (24) hours per day; seven (7) days per week.

  - ~~If neurosurgical services are not available in-house, the hospital must have a rapid transfer agreement in place with a hospital that provides this service. The agreement must be on file with the ICEMA. NSRCs must promptly accept rapid transfer requests from NSRCs. Additionally, the hospital must have a rapid transport agreement in~~

~~place with an ICEMA permitted transport provider for that exclusive operation area (EOA).~~

- Registrar

  To ensure accurate and timely data submission, hospitals must have a dedicated registrar to submit required data elements.

  - Depending on the volume, this position may be shared between specialty cares.

  - Failure to submit data as outline above, may result in probation, suspension, fines or rescission of Stroke Receiving Center Designation.

IV. INTERNAL STROKE RECEIVING CENTER~~HOSPITAL~~ POLICIES

All levels of designation ~~The hospital~~ must have ~~shall develop~~ internal policies for the following ~~situations~~:

- Stroke Team alert response policy upon EMS notification of a "Stroke Alert".
- Rapid assessment of stroke patient by Emergency and Neurology Teams.
- Prioritization of ancillary services including laboratory and pharmacy with notification of "Stroke Alert".
- Arrangement for priority bed availability in Acute Stroke Unit or Intensive Care Unit (ICU) for "Stroke Alert" patients.
- If neurosurgical services are not available in-house, the Stroke Receiving Center must have a rapid transfer agreement in place with a hospital that provides this service. Stroke Receiving Centers must promptly accept rapid transfer requests. Additionally, the Stroke Receiving Center must have a rapid transport agreement in place with an ICEMA approved EMS transport provider for that Exclusive Operation Area (EOA).
- Acknowledgement that stroke patients may **only** be diverted during the times of Internal Disaster in accordance to ICEMA Reference #8060 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only). ~~Policy (applies to physical plant breakdown threatening significant patient services or immediate patient safety issues, i.e., bomb threat, earthquake damage, hazardous material or safety and security of the hospital.) A written notification describing the event must be submitted to ICEMA within twenty-four (24) hours.~~

- Emergent thrombolytic and tele-neurology ~~(if waiver is approved)~~ protocol to be used by Neurology, Emergency, Pharmacy and Critical Care Teams.

- ~~Readiness of diagnostic computed tomography (CT) and magnetic resonance imaging (MRI), upon notification of Stroke Team.~~

- An alert/communication system for notification of incoming stroke patients, available 24 hours per day, seven (7) days per week (i.e., in-house paging system).

V. DATA COLLECTION

Designated Stroke Receiving Centers shall report all required data as determined by ICEMA and the Stroke Committee ~~will be reported to the ICEMA Medical Director on a monthly basis using an ICEMA approved registry~~.

VI. CONTINUOUS QUALITY IMPROVEMENT (CQI) PROGRAM

~~NSRC~~ Stroke Receiving Centers shall develop an on-going CQI program which monitors all aspects of treatment and management of stroke patients and identify areas needing improvement. The program must, at a minimum, monitor the following~~: parameters:~~

- Morbidity and mortality related to procedural complications.

- Review of all transfers.

- Tracking door-to-intervention times and adherence to minimum performance standards.

  ~~ICEMA will determine current performance indicators. Any specific or additional performance indicators will be determined in collaboration with the Stroke CQI Committee.~~

- Active participation in ICEMA Stroke CQI Committee ~~activities~~ and Stroke regional peer review process. This will include a review of selected medical records as determined by CQI indicators and presentation of details to peer review committee for adjudication.

- Provide Continuing Education (CE) opportunities twice per year for referral hospitals and EMS field personnel in areas of pathophysiology, assessment, triage and management for stroke patients and report annually to ICEMA.

- Lead public stroke education and illness prevention efforts and report annually to ICEMA.

VII. PERFORMANCE STANDARDS

Designated Stroke Receiving Centers must comply with the California Code of Regulations, Title 22, Division 9, Chapter 7.2, Stroke Critical Care System, ICEMA policies, and the Performance Measures set forth by the accrediting agencies identified in Section II, that exist and may change in the future.~~Compliance with the American Stroke Association Performance Measures as a Primary Stroke Center.~~

VIII. DESIGNATION LEVELS

- **Acute Stroke Ready Hospital**: A hospital able to provide the minimum level of critical care services for stroke patients in the emergency department, and are paired with one or more hospitals with a higher level of stroke services.

- **Primary Stroke Center:** A hospital that treats acute stroke patients, and identifies patients who may benefit from transfer to a higher level of care when clinically warranted.

- **Thrombectomy-Capable Stroke Center:** A primary stroke center with the availability to perform mechanical thrombectomy for the ischemic stroke patient when clinically warranted.

- **Comprehensive Stroke Center:** A hospital with specific abilities to receive diagnose and treat all stroke cases and provide the highest level of care for stroke patients.

Acute Stroke Ready Hospitals

To be considered for Acute Stroke Ready hospital designation, multiple variables will be taken into consideration and will be determined by the ICEMA Medical Director:

- What are the current needs of the community?

- How will this impact the overall care in the system?

- What is the location of the hospital, is there a prolonged distance to a primary thrombectomy or comprehensive stroke center?

The hospital must meet the following minimum criteria:

- Written transfer agreements.

- Written policies and procedures for emergent stroke services to include written protocols and standardized orders.

- A data-driven, continuous quality improvement process.
- Neuro imaging services (CT or MRI) with interpretation of imaging available 24 hours a day, seven (7) days a week, and 365 days a year.
- Laboratory services to include blood testing, electrocardiography, and x-ray services 24 hours a day, seven (7) days a week and 365 days a year.
- Provide IV thrombolytic treatment.
- A clinical Stroke Team available to see patient (in person or by tele-health) within 20 minutes of arrival to ED.

Primary Stroke Centers

- Stroke diagnosis and treatment capacity 24 hours a day, seven (7) days a week.
- A clinical Stroke Team available to see in person or via telehealth, a patient identified as a potential stroke patient within 15 minutes following patient's arrival.
- Neuro imaging services capability that is available 24 hours a day, seven (7) days a week.
- Two (2) CT scanners and one (1) MRI scanner.
- Neuro-imaging initiated within 25 minutes following arrival to ED.
- Laboratory services that are available 24 hours a day, seven (7) days a week.

Thrombectomy Capable Centers (in addition to Primary Stroke Center Requirements)

- The ability to perform mechanical thrombectomy for the treatment of ischemic stroke 24 hours a day, seven (7) days a week.
- Neuro interventionalist.
- Neuro radiologist.
- The ability to perform advanced imaging 24 hours a day, seven (7) days a week.

Comprehensive Centers (in addition to Primary and Thrombectomy Center Requirements)

- Neuro-endovascular diagnostic and therapeutic procedures available 24 hours a day, seven (7) days a week.
- Advanced imaging available 24 hours a day, seven (7) days a week.
- A stroke patient research program.
- A neurosurgical team capable of assessing and treating complex stroke and stroke-like syndromes.
- A written call schedule for attending neurointerventionalist, neurologist, or neurosurgeon providing availability 24 hours a day, seven (7) days a week.

~~VIII~~IX. DESIGNATION

ICEMA designation as an Acute Stroke Ready Hospital, Primary, Thrombectomy Capable, or Comprehensive Stroke Center will be determined based on need and volume in the community. Designation will not be determined by current accreditation only; however, Stroke Receiving Centers must be accredited at least at an equivalent designation level requested.

- The ~~NSRC~~ Stroke Receiving Center applicant shall be designated by ICEMA after satisfactory review of written documentation, a potential site survey and completion of an agreement between the hospital and ICEMA.
- Documentation of current certification ~~accreditation~~ as an Acute Ready Hospital, Primary Stroke Center Thrombectomy Capable Stroke Center or Comprehensive Stroke Center by TJC, ~~or~~ HFAP or ~~and~~ DNV ~~shall be accepted in lieu of a formal site visit by ICEMA~~.
- Initial designation as a ~~NSRC~~ Primary, Thrombectomy, Capable or Comprehensive Stoke Center shall be in accordance with terms outlined in the agreement.
- Failure to comply with the approved agreement, or ICEMA policy ~~criteria and performance standards outlined in this policy~~ may result in probation, suspension, fines or rescission of the ~~NSRC~~ Stroke Receiving Center designation.

~~I~~X. REFERENCE

Number	Name
8060	Requests for Ambulance Redirection and Hospital Diversion ~~Policy~~ (San Bernardino County Only)

TACTICAL MEDICINE FOR SPECIAL OPERATIONS~~PROGRAM~~

I. PURPOSE

To provide medical oversight and continuous quality improvement and establish policies and procedures for ~~EMS personnel assigned to Tactical Medicine Programs within the ICEMA region.~~Tactical Medicine for Special Operations first responders who respond as an integral part of a Special Weapons and Tactics (SWAT) operations.

II. POLICY

- Tactical Medicine for Special Operations~~Programs~~ shall be developed and utilized in accordance with the "California POST/EMSA Tactical Medicine Operational Programs and Standardized Training Recommendations" document that can be located on the EMSA website at emsa.ca.gov.

- Tactical Medicine for Special Operations~~Programs~~ and Tactical Medics/Tactical TEMS Specialists~~their medical personnel~~ (Emergency Medical Technicians (EMTs), Advanced EMT (AEMTs), Paramedics (EMT-Ps), and Registered Nurses (RNs)) shall be integrated into the local EMS system, in coordination with ICEMA, the local Emergency Medical Services (EMS) Agency (POST, 2010).

- Tactical ~~medicine~~Medicine for Special Operations~~programs~~ shall be reviewed and approved by ICEMA.

- Administration of this policy applies to EMTs, AEMTs, EMT-Ps, and RNs providing medical services within an established EMS Agency and as part of a recognized Tactical Medical Program.

  - The medical scope of practice for EMTs, AEMTs and EMT-Ps is consistent with Title 22, Division 9 and all ICEMA protocols.

- Tactical Medicine for Special Operations~~Programs~~ should designate a Tactical Medicine Program Director as defined within POST and EMSA guidelines.

- Tactical Medicine for Special Operations~~Programs~~ should designate a physician as a Tactical Medicine Medial Director "to provide medical direction, continuous quality improvement, medical oversight, and act as a resource for medical contingency planning" (POST, 2010).

- Tactical Medicine for Special Operations~~Operational Programs~~ should have components pertaining to planning, medical oversight, quality improvement and training as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.1-7) and *California Tactical Casualty Care Training Guidelines* (EMSA #370, June 2017).

- Tactical Medicine for Special Operations~~Programs~~ should include tactical medical personnel in mission planning and risk assessment to ensure appropriate assets are available for the identified mission as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.2).

III. PROCEDURE

- All agencies that intend to provide a Tactical Medicine ~~Program~~ for Special Operations that include EMTs, AEMTs, EMT-Ps and RNs will:

  - Submit an original application indicating the type of program. The Specialty and Optional Scope Program Application is available on the ICEMA website at ICEMA.net.

  - Submit a copy of the proposed program to include all information as listed on the application.

  - Provide a list of all EMTs, AEMTs, EMT-Ps and RNs, assigned to the Tactical Medicine for Special Operations~~Program~~.

  - Tactical medical personnel must be:

    - EMTs and AEMTs must be California certified.
    - EMT-Ps must be California licensed and accredited by ICEMA.
    - RNs must be licensed as a Registered Nurse in California and an authorized Flight Nurse or MICN within the ICEMA region.

  - Participate in ICEMA approved Continuous Quality Improvement process.

IV. TRAINING

Designated Tactical Emergency Medical Support (TEMS) personnel shall successfully complete all initial and ongoing recommended training provided by an approved tactical medicine training program as listed in the California POST/EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* ~~–~~(March 2010) ~~document~~ or *California Tactical Casualty Care Training Guidelines* (EMSA #370, June 2017).

V. DRUG AND EQUIPMENT LISTS

Equipment and supplies carried and utilized by Tactical Emergency Medical Support (TEMS) personnel shall be consistent with the items listed in the California POST/EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* document. Equipment and supplies shall be based on the appropriate level of personnel utilized for the particular Tactical Medicine for Special Operations~~Program~~ (TEMS BLS or TEMS ALS).

The Tactical Medicine for Special Operations~~Program~~ standard list of drugs and equipment carried by TEMS BLS or TEMS ALS medical personnel must be reviewed and approved by ICEMA prior to issue or use by EMT or EMT-P personnel.

TACTICAL MEDICINE OPERATIONAL EQUIPMENT RECOMMENDATIONS

Medications	BLS	ALS
Albuterol 2.5 mg with Atrovent 0.5 mg MDI		1
Aspirin 81 mg		1 bottle
Atropine Sulfate 1 mg preload		1
Dextrose 50% 25 gm preload		1
Diphenhydramine 50 mg		2
Epinephrine (1:1000) 1 mg		2
Epinephrine (1:10,000)1 mg preload		2
Glucagon 1 mg		1
Naloxone 2 mg preload		2
Nerve Agent Antidote (DuoDote)		1
Nitroglycerine 0.4 metered dose or tablets (tablets to be discarded 90 days after opening)		1
Normal Saline 500 ml		2
Ondansetron 4 mg IV/IM/oral tabs		4
Tranexamic Acid (TXA) 1 gm		1

CONTROLLED SUBSTANCE MEDICATIONS

Controlled Substance Medications MUST BE DOUBLED LOCKED	BLS	ALS
Midazolam		20 mgs
Fentanyl		200 - 400 mcg
Ketamine		120 - 500 mg

AIRWAY EQUIPMENT

Airway Equipment	BLS	ALS
Chest seal and Flutter Valve		1
End Tidal CO2 (device may be integrated into bag)		1
Endotracheal Tubes - 6.0 and/or 6.5, 7.0 and/or 7.5, and 8.0 and/or 8.5 with stylet		1 each
ET Tube holder		1
King LTS-D Size 4 and 5	1 each if approved	1 each
Laryngoscope Kit		1
Nasopharyngeal Airways Adult	1 set	1 set
Needle Cricothyrotomy Device		1
Needle Thoracostomy Kit		1
Suction (hand held)	1	1
Ventilation Bag collapsible (BVM)	1	1

IV/MONITORING EQUIPMENT

IV/Needle/Syringes	BLS	ALS
AED (with waveform monitoring preferred)	1	1
AED Pads	1	1
Blood Pressure Cuff	1	1
IO Device and Needles		1
IV Needles 14-20 Gauge		1 of each
IV Start Kit		1
IV Tubing		1
Pulse Oximeter (optional)		1
Saline Flush		2
Saline Lock		2
Stethoscope	1	1
Syringes 3 cc, 5 cc, 10 cc		1 each

DRESSING AND SPLINTING

Dressing/Splints	BLS	ALS
CoTCCC - Recommended tourniquet system	1	1
Elastic compression dressing	1	1
Latex free gloves	1	1
N95 Mask	1	1
Occlusive dressing	1	1
Roller bandage	1	1
Splint - semi-ridged moldable	1	1
Sterile gauze pads	1	1
Tape	1	1
Trauma dressing	1	1
Trauma shears	1	1

Dressing/Splints	BLS	ALS
Triangle bandage	1	1
Hemostatic impregnated gauze non-exothermic, i.e., Combat Gauze (optional)	2	2

MISCELLANEOUS EQUIPMENT

Miscellaneous Equipment	BLS	ALS
Litter	1	1
Patient care record	1	1
Personal protection equipment (PPE)	1	1
Triage tags	10	10
Tactical light	1	1
Eyeware	1	1
Rescue blanket	1	1
Self-heating blanket	1	1

BLS/LALS/ALS STANDARD DRUG AND EQUIPMENT LIST

Each ambulance and first responder unit shall be equipped with the following functional equipment and supplies. **This list represents mandatory items with minimum quantities** excluding narcotics, which must be kept within the range indicated. All expiration dates must be current. All packaging of drugs or equipment must be intact. No open products or torn packaging may be used.

All ALS (transport and non-transport) and BLS transport vehicles shall be inspected annually.

MEDICATIONS/SOLUTIONS

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Adenosine (Adenocard) 6 mg			1	1
Adenosine (Adenocard) 12 mg			2	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg		4 doses	4 doses	4 doses
Albuterol MDI with spacer		1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY
Aspirin, chewable - 81 mg tablet		2	1 bottle	1 bottle
Atropine 1 mg preload			2	2
Calcium Chloride 1 gm preload			1	1
Dextrose 10% in 250 ml Water (D10W) *		2	2	2
Diphenhydramine (Benadryl) 50 mg			1	1
Epinephrine 1 mg/ml 1 mg		2	2	2
Epinephrine 0.1 mg/ml 1 mg preload			4	4
Glucagon 1 mg		1	1	1
Glucose paste	1 tube	1 tube	1 tube	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg			4	4
Irrigating Saline and/or Sterile Water (1000 cc)	2	1	1	2
Lidocaine 100 mg			3	3
Lidocaine 2% Intravenous solution			1	1
Lidocaine 2% (Viscous) dose			1	1
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload	2	2	2	2
Nitroglycerine (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2
Normal Saline 250 cc			1	1

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Normal Saline 500 ml and/or 1000 ml		2000 ml	3000 ml	6000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)			4	4
Ondansetron (Zofran) 4 mg IM/ IV			4	4
Sodium Bicarbonate 50 mEq preload			2	2
Tranexamic Acid (TXA) 1 gm			2	2

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	BLS	LALS	ALS Non-Transport	ALS Transport
Fentanyl			200-400 mcg	200-400 mcg
Midazolam			20-40 mg	20-40 mg
Ketamine			120-~~5~~1000 mg	120-~~5~~1000 mg

AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
CPAP circuits - all manufacture's available sizes	1 (if CPAP is carried)	1 (if CPAP is carried)	1 each	2 each
End-tidal CO2 device - Pediatric and Adult (may be integrated into bag)			1 each	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet			2 each	2 each
ET Tube holders - adult		1 each	1 each	2 each
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	2 each SPECIALTY PROGRAMS ONLY	1 each	1 each	2 each
Mask - Adult & Pediatric non-rebreather oxygen mask	2 each	2 each	2 each	2 each
Mask - Infant Simple Mask	1	1	1	1
Nasal cannulas - pediatric and adult	2 each	2 each	2 each	2 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr			1 each	1 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr			1 each	1 each
Nasopharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Needle Cricothyrotomy Device - Pediatric and adult or Needles for procedure 10, 12, 14 and/or 16 gauge			1 each 2 each	1 each 2 each
One way flutter valve with adapter or equivalent			1	1
Oropharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Rigid tonsil tip suction	1		1	1
Small volume nebulizer with universal cuff adaptor		2	2	2
Suction Canister	1		1	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each		1 each	1 each

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Ventilation Bags -				
Infant 250 ml	1	1	1	1
Pediatric 500 ml (or equivalent)	1	1	1	1
Adult	1	1	1	1
Water soluble lubricating jelly		1	1	1

Non-Exchange Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Ambulance oxygen source -10 L /min for 20 minutes	1			1
Flashlight/penlight	1	1	1	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight			1 each	1 each
Laryngoscope handle with batteries - or 2 disposable handles			1	1
Magill Forceps - Pediatric and Adult			1 each	1 each
Manual powered suction device		1		
Portable oxygen with regulator - 10 L /min for 20 minutes	1	1	1	1
Portable suction device (battery operated)	1		1	1
Pulse Oximetry device	(SEE OPTIONAL EQUIPMENT SECTION, PG. 5)	1	1	1
Stethoscope	1	1	1	1
Wall mount suction device	1 (BLS TRANSPORT ONLY)			1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Conductive medium or Pacer/Defibrillation pads			2 each	2 each
Disposable Tourniquets		2	2	2
ECG electrodes			20	20
EZ-IO Driver			1 each	1 each
EZ-IO Needles: 25 mm 45 mm			 2 each 1 each	 2 each 1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets	1	1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macrodrip Administration Set		3	3	3

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Microdrip Administration Set (60 drops /cc)		1	1	2
Mucosal Atomizer Device (MAD) for nasal administration of medication	2	2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21gauge and 23 or 25 gauge	2 each	2 each	2 each	2 each
Saline Lock Large Bore Tubing Needleless		2	2	2
Sterile IV dressing		2	2	2
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc catheter tip		2 each		
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc, 20 cc, 60 cc catheter tip			2 each	2 each

Non-Exchange IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
12-lead ECG Monitor and Defibrillator with TCP and printout			1	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant (one of each size)	1	1	1	1
Capnography monitor and supplies, may be integrated in the cardiac monitor			1	1
Needle disposal system (OSHA approved)	1	1	1	1
Thermometer - Mercury Free with covers	1	1	1	1

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Ammonia Inhalants			2	2
Automatic CPR device (FDA approved)	1	1	1	1
Automatic transport ventilator (Specialty Program Only - ICEMA approved device)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Chemistry profile tubes			3	3
CPAP - (must be capable of titrating pressure between 2 and 15 cm H_2O)	1 (optional)	1 (optional)	1	1
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3	3	3	3
EMS Tourniquet	1		1	1
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes	1 each	1 each

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
		only or EZ-IO needles and drivers		
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2
Needle Thoracostomy Kit (prepackaged)			2	2
Pulse Oximetry device	1			
Translaryngeal Jet Ventilation Device			1	1
Vacutainer			1	1

* Hemostatic Dressings

- Quick Clot, Z-Medica
  - Quick Clot, Combat Gauze LE
  - Quick Clot, EMS Rolled Gauze, 4x4 Dressing, TraumaPad
- Celox
  - Celox Gauze, Z-Fold Hemostatic Gauze
  - Celox Rapid, Hemostatic Z-Fold Gauze
- HemCon ChitoFlex Pro Dressing

Note:

- The above products are "packaged" in various forms (i.e., Z-fold, rolled gauze, trauma pads, 4"x4"pads) and are authorized provided they are comprised of the approved product.
- Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

Exchanged Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
Adhesive tape - 1 inch	2	2	2	2
Air occlusive dressing	1	1	1	1
Ankle and wrist restraints, soft ties acceptable	1		1	1
Antiseptic swabs/wipes	10	10	10	10
Bedpan or fracture pan Urinal	1 (BLS TRANSPORT UNITS ONLY 1 (BLS TRANSPORT UNITS ONLY			1 1
Cervical Collars - Rigid Pediatric and Adult all sizes or Cervical Collars - Adjustable Adult and Pediatric	2 each 2 each	2 each 2 each	2 each 2 each	2 each 2 each
Cold Packs	2	2	2	2
Emesis basin or disposable bags and covered waste container	1	1	1	1
Head immobilization device	2	2	2	2
OB Kit	1	1	1	1
Pneumatic or rigid splints capable of splinting all extremities	4	2	2	4
Provodine/Iodine swabs/wipes or antiseptic equivalent		4	10	10
Roller bandages - 4 inch	6	3	3	6
Sterile bandage compress or equivalent	6	2	2	6
Sterile gauze pads - 4x4 inch	4	4	4	4
Sterile sheet for Burns	2	2	2	2
Universal dressing 10x30 inches	2	2	2	2

Non-Exchange Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
800 MHz Radio		1	1	1
Ambulance gurney	1 (BLS TRANSPORT UNITS ONLY			1
Bandage shears	1	1	1	1
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2	1	2	2
Pediatric Emergency Measuring Tape (Broselow, etc.)		1	1	1
Drinkable water in secured plastic container or equivalent	1 gallon			1 gallon
Long board with restraint straps	1	1	1	1
Pediatric immobilization board	1	1	1	1

Non-Exchange Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
Pillow, pillow case, sheets and blanket	1 set (BLS TRANSPORT UNITS ONLY			1 set
Short extrication device	1	1	1	1
Straps to secure patient to gurney	1 set (BLS TRANSPORT UNITS ONLY			1 set
Traction splint	1	1	1	1
Triage Tags - ICEMA approved	20	20	20	20

EMS AIRCRAFT STANDARD DRUG AND EQUIPMENT LIST

Each Aircraft shall be equipped with the following functional equipment and supplies. This list represents mandatory items with minimum quantities, to exclude narcotics, which must be kept within the range indicated. All expiration dates must be current. All packaging of drugs or equipment must be intact. No open products or torn packaging may be used.

MEDICATIONS/SOLUTIONS	AMOUNT
Adenosine (Adenocard) 6 mg	1
Adenosine (Adenocard) 12 mg	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	3 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	2
Calcium Chloride 1 gm preload	1
Dextrose 10% in 250 ml Water (D10W) *	2
Diphenhydramine (Benadryl) 50 mg	1
Epinephrine 1 mg/ml 1 mg	2
Epinephrine 0.1 mg/ml 1mg preload	3
Glucagon 1 mg	1
Glucopaste	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	3
Lidocaine 100 mg	3
Lidocaine 2% Intravenous solution	1
Lidocaine 2% (Viscous)	1 dose
Magnesium Sulfate 10 gms	1
Naloxone (Narcan) 2 mg preload	2
Nitroglycerin (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10 cc)	2
Normal Saline 250 ml	1
Normal Saline 500 ml and/or 1000 ml	2000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Sodium Bicarbonate 50 mEq preload	2
Tranexamic Acid (TXA) 1 gm	2

CONTROLLED SUBSTANCE MEDICATIONS-MUST BE DOUBLE LOCKED	AMOUNT
Fentanyl	200-400 mcg
Ketamine	120-~~5~~1000 mg
Midazolam	20-40 mg

AIRWAY/SUCTION EQUIPMENT	**AMOUNT**
Aircraft Oxygen source -10 L /min for 20 minutes	1
C-PAP circuits - all manufacture's available sizes	1 each
End-tidal CO2 device - pediatric and adult (may be integrated into bag)	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet	2 each
ET Tube holders - adult	1 each
Flashlight/penlight	1
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	1 each
Laryngoscope handle with batteries - or 2 disposable handles	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps - Pediatric and Adult	1 each
Nasal Cannulas - infant, pediatric and adult	2 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways - infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) - Pediatric and adult *or* Needles for procedure 10, 12, 14 and/or16 gauge	1 each 2 each
Non Re-Breather O_2 Mask - Pediatric and Adult, Infant Simple Mask	2 each
One way flutter valve with adapter or equivalent	1
Oropharyngeal Airways - infant, child, and adult	1 each
Portable Oxygen with regulator - 10 L /min for 20 minutes	1
Portable suction device (battery operated) *and/or* Wall mount suction device	1 each
Pulse Oximetry device	1
Small volume nebulizer with universal cuff adaptor	1
Stethoscope	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags - Infant 250 ml, Pediatric 500 ml and Adult 1 L	1 each
Water soluble lubricating jelly	1
Ridged tonsil tip suction	1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT	**AMOUNT**
12-Lead ECG Monitor and Defibrillator with TCP and printout	1
800 MHz Radio	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant	1 set
Capnography monitor and supplies, may be integrated in the cardiac monitor	1
Conductive medium *or* Adult and Pediatric Pacer/Defibrillation pads	2 each
ECG - Pediatric and Adult	20 patches
EZ IO Needles and Driver 25 mm and 45 mm	2 each 1 each
3-way stopcock with extension tubing	2
IO Needles - Manual, Adult and Pediatric, Optional	1 each
IV Catheters - sizes 14, 16, 18, 20, 22, 24	2 each

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT	AMOUNT
Glucose monitoring device	1
Macrodrip Administration Set Microdrip Administration Set (60 drops/ml)	3 1
Mucosal Atomizer Device (MAD) for nasal administration of medication	4
Needle disposal system (OSHA approved)	1
Pressure infusion bag	1
Safety Needles - 20 or 21 gauge and 23 or 25 gauge	2 each
Saline Lock	2
Syringes w/wo safety needles - 1 ml, 3 ml, 10 ml, 20 ml	2 each
Syringe - 60 ml catheter tip	2
Thermometer - Mercury free with covers	1

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
Adhesive tape - 1 inch	2
Air occlusive dressing	1
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Ankle and wrist restraints, soft ties acceptable	1
Antiseptic swabs/wipes	
Bandage shears	1
Blanket or sheet	2
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2
Cervical Collars - Rigid Pediatric & Adult all sizes *or* Cervical Collars - Adjustable Adult and Pediatric	1 each 1 each
Emesis basin or disposable bags and covered waste container	1
Head immobilization device	1
OB Kit	1
Pediatric Emergency Measuring Tape (Broselow, etc.)	1
Pneumatic or rigid splints capable of splinting all extremities	4
Provodine/Iodine swabs/wipes or antiseptic equivalent	
Roller bandages - 4 inch	3
Sterile bandage compress or equivalent	6
Sterile gauze pads - 4x4 inch	4
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Ammonia Inhalants	2
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Chemistry profile tubes	3

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3
D5W in bag	1
Hemostatic Dressing *	1
IV infusion pump	1
IV warming device	1
Manual powered suction device	1
Medical Tourniquet	1
Needle Thoracostomy Kit (prepackaged)	2
Pediatric immobilization board	1
Translaryngeal Jet Ventilation Device	1
Vacutainer	1

* Hemostatic Dressings

- Quick Clot, Z-Medica
  - Quick Clot, Combat Gauze LE
  - Quick Clot, EMS Rolled Gauze, 4x4 Dressing, TraumaPad
- Celox
  - Celox Gauze, Z-Fold Hemostatic Gauze
  - Celox Rapid, Hemostatic Z-Fold Gauze
- HemCon ChitoFlex Pro Dressing

Note:

- The above products are "packaged" in various forms (i.e., Z-fold, rolled gauze, trauma pads, and 4"x4" pads) and are authorized provided they are comprised of the approved product.
- Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.

MEDICATION - STANDARD ORDERS

Medications listed in this protocol may be used only for the purposes referenced by the associated ICEMA Treatment Protocol.

For Nerve Agent Antidote Kit (NAAK) or medications deployed with the ChemPack see Appendix I (Page 12).

Adenosine (Adenocard) - Adult (ALS)

Stable narrow-complex SVT or Wide complex tachycardia:

Adenosine, 6 mg rapid IVP followed immediately by 20 cc NS bolus, and Adenosine, 12 mg rapid IVP followed immediately by 20 cc NS bolus if patient does not convert. May repeat one (1) time.

Reference #s 7010, 7020, 11050

Albuterol (Proventil) Aerosolized Solution - Adult (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 6090, 7010, 7020, 11010, 11100

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Adult (LALS, ALS - Specialty Programs Only)

Albuterol MDI, four (4) puffs every ten (10) minutes for continued shortness of breath and wheezing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Albuterol (Proventil) - Pediatric (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 7010, 7020, 14010, 14030, 14070

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Pediatric (LALS, ALS - Specialty Programs Only)

Albuterol MDI, four (4) puffs every ten (10) minutes for continued shortness of breath and wheezing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Aspirin, chewable (LALS, ALS)

Aspirin, 325 mg PO chewed (one (1) adult non-enteric coated aspirin) or four (4) chewable 81 mg aspirin.

Reference #s 2020, 6090, 6110, 7010, 7020, 11060

Atropine (ALS)

Atropine, 0.5 mg IV/IO. May repeat every five (5) minutes up to a maximum of 3 mg or 0.04 mg/kg.

Organophosphate poisoning:
Atropine, 2 mg IV/IO, repeat at 2 mg increments every five (5) minutes if patient remains symptomatic.

Reference #s 6090, 6110, 7010, 7020, 11040, 12020, 13010

Calcium Chloride (ALS)

Calcium Channel Blocker Poisonings:
Calcium Chloride, 1 gm (10 cc of a 10% solution) IV/IO, base hospital order only.

Reference #s 2020, 7010, 7020, 13010

Dextrose - Adult (LALS, ALS)

Hypoglycemia - Adult with blood glucose less than 80 mg/dL:
Dextrose 10% /250 ml (D10W 25 gm) IV/IO Bolus

Reference #s 2020, 6090, 6110, 7010, 7020, 8010, 11050, 11080, 13020, 13030

Dextrose - Pediatric (LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:
Dextrose 10%/250 ml (D10W 25 gm) 0.5 gm/kg (5 ml/kg) IV/IO

Reference #s 2020, 7010, 7020, 13020, 13030, 14040, 14050, 14060

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

Reference #s 6090, 6110, 7010, 7020, 11010, 13010

Diphenhydramine - Pediatric (ALS)

Diphenhydramine, 1 mg/kg slow IV/IO, not to exceed adult dose of 25 mg, **or**

Diphenhydramine, 2 mg/kg IM not to exceed adult dose of 50 mg IM

Reference #s 7010, 7020, 14030

Epinephrine (1 mg/ml) - Adult (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:
Epinephrine, 0.3 mg IM. May repeat after fifteen (15) minutes one (1) time if symptoms do not improve.

Reference # 11010

Epinephrine (0.1 mg/ml) - Adult (ALS)

For persistent severe anaphylactic reaction:
Epinephrine (0.1 mg/ml), 0.1 mg slow IVP/IO. May repeat every five (5) minutes as needed to total dosage of 0.5 mg.

Reference # 11010

Cardiac Arrest, Asystole, PEA:
Epinephrine (0.1 mg/ml), 1 mg IV/IO. Repeat after every two (2) minute cycle of CPR.

Reference #s 2020, 6090, 6110, 7010, 7020, 11010, 11070, 12020

Epinephrine (0.01 mg/ml) - Adult (ALS)

For persistent profound shock and hypotension (Push Dose Epinephrine):

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 1 ml every one (1) to five (5) minutes titrated to maintain SBP more than 90 mm Hg.

Reference #s 2020, 6090, 6110, 7010, 7020, 7040, 11090

Epinephrine (1 mg/ml) - Pediatric (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:
Epinephrine, 0.01 mg/kg IM not to exceed adult dosage of 0.3 mg.

Reference #s 2020, 6090, 7010, 7020, 14010, 14030

Epinephrine (0.1 mg/ml) - Pediatric (ALS)

Anaphylactic reaction (no palpable radial pulse and depressed level of consciousness):

Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO, no more than 0.1 mg per dose. May repeat to a maximum of 0.5 mg.

Cardiac Arrest:

1 day to 8 years	Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO (do not exceed adult dosage)
9 to 14 years	Epinephrine (0.1mg/ml), 1.0 mg IV/IO

Newborn Care:

Epinephrine (0.1 mg/ml), 0.01mg/kg IV/IO if heart rate is less than 60 after one (1) minute after evaluating airway for hypoxia and assessing body temperature for hypothermia.

Epinephrine (0.1 mg/ml), 0.005 mg/kg IV/IO every ten (10) minutes for persistent hypotension as a base hospital order or in radio communication failure.

Reference # 14090

Epinephrine (0.01 mg/ml) - Pediatric (ALS)

Post resuscitation, ~~with continued signs of~~ profound shock and hypotension (Push Dose Epinephrine):

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 0.1ml/kg (do not exceed adult dosage), every one (1) to five (5) minutes. Titrate to maintain a SBP more than 70 mm Hg.

Reference #s 2020, 7010, 7020, 7040, 11090, 14040

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Acute traumatic injuries, acute abdominal/flank pain, burn injuries, Cancer pain, Sickle Cell Crisis:

Fentanyl, 50 mcg slow IV/IO push over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg IV/IO, **or**

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Pacing, synchronized cardioversion:

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Reference #s 2020, 6090, 6110, 7010, 7020, 7030, 10190, 11060, 11100, 11140, 13030, 15010

Fentanyl - Pediatric (ALS)

Fentanyl, 0.5 mcg/kg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 100 mcg.

Fentanyl, 1 mcg/kg IM/IN, may repeat every ten (10) minutes titrated to pain not to exceed 200 mcg.

Reference #s 2020, 6110, 7010, 7020, 7030, 11060, 13030, 14070, 15020

Glucose - Oral - Adult (BLS, LALS, ALS)

Adult with blood glucose less than 80 mg/dL:

Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 11080, 11090, 11110, 13020

Glucose - Oral - Pediatric (BLS, LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:

Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 14050, 14060

Glucagon - Adult (LALS, ALS)

Glucagon, 1 mg IM/SC/IN, if unable to establish IV. May administer one (1) time only.

Beta blocker Poisoning:

Glucagon, 1 mg IV/IO (base hospital order only)

Reference #s 6090, 6110, 7010, 7020, 11080, 13010, 13030

Glucagon - Pediatric (LALS, ALS)

Glucagon, 0.025 mg/kg IM/IN, if unable to start an IV. May be repeated one (1) time after twenty (20) minutes for a combined maximum dose of 1 mg.

Reference #s 7010, 7020, 13030, 14050, 14060

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol Adult (ALS)

Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 11010, 11100

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol Adult (ALS - Specialty Programs Only)

When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 6090, 6110, 7010, 7020, 11010, 11100

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol - Pediatric (ALS)

1 day to 12 months	Atrovent, 0.25 mg nebulized. Administer one (1) dose only.
1 year to 14 years	Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 14010, 14030, 14070

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol - Pediatric (ALS - Specialty Programs Only)

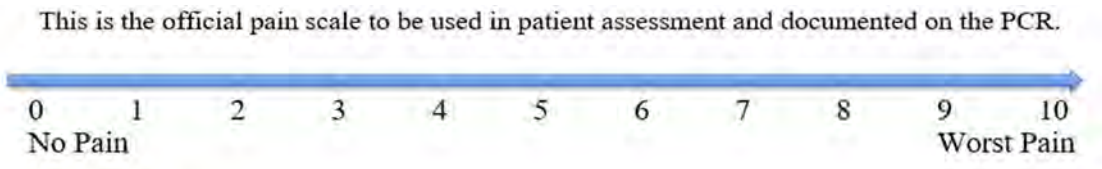
When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Ketamine - Adult (ALS)

Acute traumatic injury, acute abdominal/flank pain, burn injuries, cancer related pain and sickle cell crisis:

Ketamine, 0.3 mg/kg to a max of 30 mg in a 50 - 100 ml of NS via IV over five (5) minutes. May repeat one (1) time, after 15 minutes, if pain score remains at five (5) or higher. Do not administer IVP, IO, IM, or IN.



Reference #s 7010, 7020, 11140

Lidocaine - Adult (ALS)

Endotracheal Intubation, ~~King Airway, NG/OG,~~ for suspected increased intracranial pressure (ICP):

Lidocaine, 1.5 mg/kg IV/IO

VT (pulseless)/VF:

Initial Dose: Lidocaine, 1.5 mg/kg IV/IO

For refractory *VT (pulseless)/VF*, may administer an additional 0.75 mg/kg IV/IO, repeat one (1) time in five (5) to ten (10) minutes; maximum total dose of 3 mg/kg.

V-Tach, Wide Complex Tachycardia - with Pulses:

Lidocaine, 1.5 mg/kg slow IV/IO

May administer an additional 0.75 mg/kg slow IV/IO; maximum total dose of 3 mg/kg.
Reference #s 2020, 6090, 7010, 7020, 8010, 10190, 11050, 11070, 15010

Lidocaine - Pediatric (ALS)

~~*NG/OG, for suspected increased intracranial pressure (ICP):*~~

~~Lidocaine, 1.5 mg/kg IV/IO~~

Cardiac Arrest:

1 day to 8 years	Lidocaine, 1.0 mg/kg IV/IO
9 to 14 years	Lidocaine, 1.0 mg/kg IV/IO

May repeat Lidocaine at 0.5 mg/kg after five (5) minutes; maximum total dose of 3 mg/kg.

Reference #s 2020, 7010, 7020, 14040

Lidocaine 2% (Intravenous Solution) - Pediatric and Adult (ALS)

Pain associated with IO infusion:

Lidocaine, 0.5 mg/kg slow IO push over two (2) minutes, not to exceed 40 mg total.

Reference #s 2020, 7010, 7020, 10140, 10190

Lidocaine 2% Gel (Viscous) - Pediatric and Adult (ALS)

Pain associated with Nasogastric/Orogastric Tube insertion.

Reference # 10190

Magnesium Sulfate (ALS)

Polymorphic Ventricular Tachycardia:

Magnesium Sulfate, 2 gm IV/IO bolus over five (5) minutes for polymorphic VT if prolonged QT is observed during sinus rhythm post-cardioversion.

Eclampsia (Seizure/Tonic/Clonic Activity):

Magnesium Sulfate, 4 gm IV/IO slow IV push over three (3) to four (4) minutes.

Magnesium Sulfate, 10 mg/min IV/IO drip to prevent continued seizures.

Reference #s 2020, 7010, 7020, 8010, 14080

Midazolam (Versed) - Adult (ALS)

Behavioral Emergencies, with suspected excited delirium:

Midazolam, 5 mg IM/IN or IV/IO push. May repeat once for a total dosage of 10 mg.

Reference # 11130

Seizure:

Midazolam, 2.5 mg IV/IO/IN. May repeat in five (5) minutes for continued seizure activity, **or**

Midazolam, 5 mg IM. May repeat in ten (10) minutes for continued seizure activity.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Pacing, synchronized cardioversion:

Midazolam, 2 mg slow IV/IO push or IN

Reference #s 6090, 6110, 7010, 7020, 10190, 11080, 13020, 14080

Midazolam (Versed) - Pediatric (ALS)

Seizures:

Midazolam, 0.1 mg/kg IV/IO with maximum dose 2.5 mg. May repeat Midazolam in five (5) minutes, **or**

Midazolam, 0.2 mg/kg IM/IN with maximum dose of 5 mg. May repeat Midazolam in ten (10) minutes for continued seizure.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 7010, 7020, 14060

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IM/IN, may repeat Naloxone 0.5 mg IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 7010, 7020, 8050 11080

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IV/IO/IM/IN, may repeat Naloxone 0.5 mg IV/IO/IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 6110, 7010, 7020, 11080

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years	Naloxone, 0.1 mg/kg IM/IN (do not exceed the adult dose of 0.5 mg per administration)
9 to 14 years	Naloxone, 0.5 mg IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IM/IN.

Reference #s 7010, 7020, 8050, 14040, 14050

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years	Naloxone, 0.1 mg/kg IV/IO/IM/IN (do not exceed the adult dose of 0.5 mg per administration)
9 to 14 years	Naloxone, 0.5 mg IV/IO/IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IV/IO/IM/IN.

Reference #s 7010, 7020, 14040, 14050

Nitroglycerin (NTG) (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

One (1) every three (3) minutes as needed. May be repeated as long as patient continues to have signs of adequate tissue perfusion. **If a Right Ventricular Infarction is suspected, the use of nitrates requires base hospital contact.**

Nitroglycerin is contraindicated if there are signs of inadequate tissue perfusion or if sexual enhancement medications have been utilized within the past forty-eight (48) hours.

Reference #s 6090, 6110, 7010, 7020, 11010, 11060

Ondansetron (Zofran) - Patients four (4) years old to Adult (ALS)

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

All patients four (4) to eight (8) years old: May administer a total of 4 mgs of Ondansetron prior to base hospital contact.

All patients nine (9) and older: May administer Ondansetron 4 mg; may repeat two (2) times, at ten (10) minute intervals, for a total of 12 mgs prior to base hospital contact.

May be used as prophylactic treatment of nausea and vomiting associated with narcotic administration.

Reference #s 6110, 7010, 7020, 9120, 10100, 15010, 15020

Oxygen (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):

Titrate Oxygen at lowest rate required to maintain SPO_2 at 94%. Do not administer supplemental oxygen for SPO_2 more than 95%.

Chronic Obstructive Pulmonary Disease (COPD):

Titrate Oxygen at lowest rate required to maintain SPO_2 at 90%. Do not administer supplemental oxygen for SPO_2 more than 91%.

Reference #s 9010, 9120, 11010, 11020, 11040, 11050, 11060, 11080, 11090, 11100, 11150, 13010, 13020, 13030, 14010, 14020, 14030, 14050, 14060, 14070, 14080, 14090, 15010, 15020

Sodium Bicarbonate (ALS) (base hospital order only)

Tricyclic Poisoning:

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 2020, 7010, 7020, 13010

Tranexamic Acid (TXA) - Patients 15 years of age and older (ALS)

Signs of hemorrhagic shock meeting inclusion criteria:

Administer TXA 1 gm in 50 - 100 ml of NS via IV/IO over ten (10) minutes. Do not administer IVP as this will cause hypotension.

Reference #s 7010, 7020, 15010

APPENDIX I

Medications for self-administration or with deployment of the ChemPack.

Medications listed below may be used only for the purposes referenced by the associated ICEMA Treatment Protocol. Any other use, route or dose other than those listed, must be ordered in consultation with the Base Hospital physician.

Atropine - Pediatric (BLS, AEMT-Auto-injector only with training, ALS)

Known nerve agent/organophosphate poisoning with deployment of the ChemPack using:

Two (2) or more mild symptoms: Administer the weight-based dose listed below as soon as an exposure is known or strongly suspected. If severe symptoms develop after the first dose, two (2) additional doses should be repeated in rapid succession ten (10) minutes after the first dose; do not administer more than three (3) doses. If profound anticholinergic effects occur in the absence of excessive bronchial secretions, further doses of atropine should be withheld.

One (1) or more severe symptoms: Immediately administer (3) three weight-based doses listed below in rapid succession.

Weight-based dosing:

Less than 6.8 kg (less than 15 lbs):	0.25 mg, IM using multi-dose vial
6.8 to 18 kg (15 to 40 lbs):	0.5 mg, IM using AtroPen auto-injector
18 to 41 kg (40 to 90 lbs):	1 mg, IM using AtroPen auto-injector
More than 41 kg (more than 90 lbs):	2 mg, IM using multi-dose vial

Symptoms of insecticide or nerve agent poisoning, as provided by manufacturer in the AtroPen product labeling, to guide therapy:

Mild symptoms: Blurred vision, bradycardia, breathing difficulties, chest tightness, coughing, drooling, miosis, muscular twitching, nausea, runny nose, salivation increased, stomach cramps, tachycardia, teary eyes, tremor, vomiting, or wheezing.

Severe symptoms: Breathing difficulties (severe), confused/strange behavior, defecation (involuntary), muscular twitching/generalized weakness (severe), respiratory secretions (severe), seizure, unconsciousness, urination (involuntary).

NOTE: Infants may become drowsy or unconscious with muscle floppiness as opposed to muscle twitching.

Reference #s 7040, 13010, 13040

Diazepam (Valium) - Adult (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 10 mg (5 mg/ml) auto-injector IM (if IV is unavailable), **or**
Diazepam 2.5 mg IV

Reference # 13040

Diazepam (Valium) - Pediatric (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 0.05 mg/kg IV

Reference # 13040

Nerve Agent Antidote Kit (NAAK)/Mark I or DuoDote (containing Atropine/Pralidoxime Chloride for self-administration or with deployment of the ChemPack) - Adult

Nerve agent exposure with associated symptoms:

One (1) NAAK auto-injector IM into outer thigh. May repeat up to two (2) times every ten (10) to fifteen (15) minutes if symptoms persist.

Reference #s 7010, 7020, 13010, 13040

REQUESTS FOR AMBULANCE REDIRECTION AND HOSPITAL DIVERSION ~~POLICY~~

(San Bernardino County Only)

I. PURPOSE

To define policy and procedures for hospitals to request temporary redirection ~~diversion~~ of advanced life support (ALS) ambulances.

~~**AUTHORITY**~~

~~California Health and Safety Code, Division 2.5, Chapter 6, Sections 1798(a), 1798.2, and 1798.102; California Code of Regulations, Title 22, Division 9, Chapter 4, Section 100169.~~

II. POLICY~~PRINCIPLES~~

~~1. A request for diversion of ALS ambulances should be a temporary measure.~~

~~2. Final authority relating to destination of ALS ambulances rests with the Base Station physician.~~

- Ambulance redirection based on hospital capacity, census or staffing is not permitted in the ICEMA region and will only be permitted as outlined in this policy.

- ~~3.~~ This policy applies to the 9-1-1 emergency system as a temporary measure and is not intended for utilization to determine destination for interfacility transports, including higher level of care transports.

- ~~4. A hospital's request to divert in the approved categories shall be made by the Emergency Department (ED) attending physician or by the trauma surgeon for trauma hospital diversion, in consultation with the hospital CEO or delegated responsible administrative representative. The consultation with the administrative officer must be documented and available for review.~~

- If a hospital meets internal disaster criteria, Trauma Center Diversion or any other specialty care centers with unique circumstances, immediate telephone notification must be made to the ICEMA Duty Officer by an administrative staff member who has the authority to determine that criteria has been met for redirection or diversion.

- Hospitals must notify EMS dispatch centers immediately via ReddiNet or available communication modalities.

- ~~5.~~ Hospitals must maintain a hospital redirection~~diversion~~ policy that conforms with ~~to~~ this policy. ~~the ICEMA's Request for Hospital Diversion Policy.~~ The hospital policy shall~~ould~~ include plans to educate all appropriate staff on proper utilization of redirection.~~diversion.~~ ~~categories, internal procedures for authorizing diversion and procedures for notification of system participants.~~

- Receiving hospitals cannot redirect an incoming ambulance and diversion/redirection is only permitted as outlined in this policy.

- Within 72 hours of an incident, the hospital must provide ICEMA with a written after action report indicating the reasons for internal disaster, plans activated, adverse patient consequences and the corrective actions taken. The report must be signed by the CEO or designated responsible individual.

- ~~6.~~ ICEMA may perform unannounced site visits to hospitals on temporary redirection ~~diversion~~ status to ensure compliance with the ~~ICEMA R~~request for ambulance redirection~~Hospital Diversion Policy~~.

- ~~7.~~ ICEMA may randomly audit b~~B~~ase hospital ~~Station~~ records to ensure ~~diverted~~ redirected ambulance patients are transported to the appropriate destination.

- ~~8.~~ ~~When possible,~~ ICEMA staff may ~~will~~ contact the hospital to determine the reasons for ambulance redirection~~Internal Disaster Diversion~~, under this policy~~Policy, Item #3~~.

- ~~9.~~ ICEMA may remove any hospital from redirection status using ReddiNet if it is determined that the request is not consistent with this policy.~~ICEMA reserves the right and responsibility to advise any hospital that the diversion is not appropriate for a 9-1-1 system and may remove the hospital from diversion through the ReddiNet System.~~

III. PROCEDURE~~POLICY~~

A request for redirection~~diversion~~ of ALS ambulances may be made for the following approved categories:

- ~~1.~~ ~~Neuro/~~CT Redirection~~Diversion~~ (for Non-Specialty Care Centers)

  - ~~a.~~ When Non-Specialty Care Centers experience CT scanner failure~~The hospital's CT scanner is not functioning~~, the hospital can go on ambulance redirection using the ReddiNet system~~ and, therefore, is not the ideal destination for~~ for EMS patients who may require CT imaging.~~the following types of patients:~~

~~1) New onset of altered level of consciousness for traumatic or medical reasons. ** Does not apply to trauma centers for trauma diversion. Refer to ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy.~~

~~2) Suspected stroke. ** Does not apply to neurovascular stroke receiving centers. Refer to ICEMA Reference #6100 - Stroke "NSRC" Receiving Centers.~~

- ~~2.~~ Trauma Center Diversion (for use by designated Trauma Centers only)

  - The on duty trauma surgeon must be involved in the decisions regarding any request for trauma diversion.

  - ~~a.~~ The ~~general surgeon for the~~ trauma team and trauma surgeon (both first and second call) ~~service~~ and ~~other designated trauma team resources~~ are fully committed to the care of trauma patients in the operating room and are NOT immediately available for any additional incoming patients meeting approved trauma triage criteria.

  - ~~b.~~ All operating rooms are occupied with critically injured patients that meet trauma triage criteria.~~The request for Trauma Center Diversion should only be applicable if the general surgeon and back-up general surgeon are committed. The ability to request Trauma Center Diversion cannot be used in cases of temporary unavailability of subspecialists.~~

  - ~~c.~~ All CT Scanners are inoperable due to scanner failure at a designated Trauma Center. ~~**When all designated trauma centers are on Trauma Center Diversion, trauma centers shall accept all trauma patients.**~~

  - Internal disaster.

  NOTE: Diversion is canceled when all designated trauma centers are on Trauma Center Diversion.

~~**d. Designated Trauma Centers may not divert patients meeting trauma triage criteria to a non-designated hospital except in instances of Internal Disaster Diversion.**~~

- ~~3.~~ **Internal Disaster Diversion**

  - ~~a.~~ Requests for Internal Disaster Diversion shall apply only to physical plant breakdown affecting ~~threatening~~ the Emergency Department or significant patient services.

NOTE: Examples of Internal Disaster Diversion include bomb threats, explosions, power outage and a nonfunctional generator, fire, earthquake damage, hazardous materials exposure, incidents involving the safety and/or security of a facility.

- Internal Disaster Diversion shall not be used for hospital capacity or staffing issues.

- ~~b.~~ Internal Disaster Diversion ~~shall~~ will stop all 9-1-1 transports into the facility.

- ~~c.~~ The hospital CEO or AOD shall be notified and ~~that~~ notification ~~shall be~~ documented in ~~the~~ ReddiNet.

- ~~d.~~ If the hospital is ~~also~~ a designated b~~B~~ase ~~Station~~hospital, the hospital should consider immediate~~ly~~ transfer of responsibility for on-line ~~control~~ direction to another b~~B~~ase ~~Station~~ hospital. ~~based upon prearranged written agreement and n~~Notification must be made to the ~~9-1-1~~EMS provider.

- ~~e.~~ The affected hospital shall enter Internal Disaster Diversion status ~~shall be entered immediately~~ into ~~the~~ ReddiNet ~~System~~immediately.

~~f. If capability exists, hospital shall notify all primary 9-1-1 dispatching agencies.~~

~~g. Within seventy-two (72) hours, hospital shall advise ICEMA and the State Department of Health Services in writing (e-mail is acceptable) of the reasons for internal disaster and how the problem was corrected. The written notification shall be signed by the CEO or delegated responsible individual.~~

IV. EXCEPTIONS TO ~~NEURO/~~CT AND TRAUMA DIVERSION ONLY

- ~~1.~~ Basic life support (BLS) ambulances shall not be diverted.

- ~~2.~~ Ambulances on hospital property shall not be diverted.

- ~~3.~~ With the exception of Internal Disaster Diversion involving significant plant failure, p~~P~~atients exhibiting unmanageable problems~~,~~ (~~e.g.~~i.e., difficult to manage ~~unmanageable~~ airway, uncontrolled hemorrhage, cardiopulmonary arrest)~~,~~ in the field, shall be transported to the closest ~~E~~emergency d~~D~~epartment. ~~regardless of diversion status.~~

~~I~~V. REFERENCES

Number	Name
6100	Stroke ~~"NSRC"~~ Critical Care System Designation~~Receiving Centers~~ (San Bernardino County Only)
15030	Trauma Triage Criteria and Destination Policy

CONTINUATION OF CARE
(San Bernardino County Only)

I. PURPOSE

To develop a system that ensures the rapid transport of patients upon arrival at a receiving hospital that requires urgent transfer to a higher level of care.~~at the time of symptom onset or injury, to receiving the most appropriate definitive care. This system of care consists of public safety answering point (PSAP) providers, EMS providers, referral hospitals (RH), Specialty Care Centers (Cardiovascular ST Elevation Myocardial Infarction (STEMI), Stroke or Trauma), ICEMA and EMS leaders combining their efforts to achieve this goal.~~

This policy shall only be used for:

- Rapid transport of ~~trauma,~~ STEMI, ~~and~~ stroke and trauma patients from referral hospitals~~RH~~ to the appropriate Specialty Care Center.
- Specialty Care Center to Specialty Care Center when higher level of care is required.
- EMS providers that are transporting unstable patients ~~requiring transport~~ to a ~~Specialty Care~~ STEMI, Stroke or Trauma Center ~~to~~ but need to stop at the ~~at any~~ closest receiving hospital for airway stabilization before continuing ~~on~~to a ~~and continue on to a~~ Specialty Care Center.

It is not to be used for ~~any other form of~~ interfacility transfer of patients.

~~II. DEFINITIONS~~

~~**Neurovascular Stroke Receiving Centers (NSRC)**: A licensed general acute care hospital designated by ICEMA's Governing Board as a NSRC. A licensed acute care hospital designated by ICEMA's Governing Board as a receiving hospital for patients triaged as having a cerebral vascular event requiring hospitalization for treatment, evaluation and /or management of stroke.~~

~~**Referral Hospital (RH)**: Any licensed general acute care hospital that is not an ICEMA designated TC, SRC or NSRC.~~

~~**Specialty Care Center**: An ICEMA designated Trauma, STEMI or Stroke Center.~~

~~**STEMI Receiving Centers (SRC)**: A licensed general acute care hospital designated by ICEMA's Governing Board as STEMI Receiving Center with emergency interventional cardiac catheterization capabilities.~~

~~**Trauma Center (TC)**: A licensed general acute care hospital designated by ICEMA's Governing Board as a trauma hospital in accordance with State laws, regulations and ICEMA policies.~~

II~~I~~. INCLUSION CRITERIA

- ~~Any p~~Patients meeting ICEMA Reference #15030 - Trauma Triage Criteria, ~~(refer to ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy)~~ who arrive~~ing~~ at a non-trauma hospital. ~~by EMS or non-EMS transport.~~

- Upon recognition of any critically injured patient~~s~~ that require urgent transfer from one trauma receiving center to a higher level of care trauma receiving center.

- Patients requiring subspecialty services that are not a requirement for trauma center designation (i.e., reimplantation, hand surgery, burn, etc.) are not covered by this policy and must be managed through the normal interfacility transfer process compliant with all applicable regulations.

- Any patient with a positive STEMI requiring EMS transport to a STEMI Receiving Center ~~SRC~~ (refer to ICEMA Reference #6070 - ~~Cardiovascular~~ ST Elevation Myocardial Infarction Critical Care System ~~Receiving Centers Criteria and~~ Designation~~Destination Policy~~).

- Any patient with a positive mLAPSS ~~or stroke scale~~ requiring EMS transport to a ~~NSRC~~Stroke Receiving Center, (refer to ICEMA Reference #6100 - Stroke Critical Care System Designation ~~Policy~~).

- Any stroke patient identified with a Large Vessel Occlusion (LVO) requiring rapid EMS transport to higher level of care for Endovascular Stroke Treatment.

III~~V~~. INITIAL TREATMENT GOALS AT REFERRAL HOSPITAL

- Initiate resuscitative measures within the capabilities of the facility.

- Ensure patient stabilization is adequate for subsequent transport.

- Do not delay transport by initiating any diagnostic procedures that do not have direct impact on immediate resuscitative measures.

  - GUIDELINES FOR USE OF CONTINUATION OF CARE POLICY

    Less than~~<~~ 30 minutes at referral hospital~~RH~~ (door-in/door-out).
    Less than ~~<~~ 30 minutes to complete ALS continuation of care transport.

Less than ~~<~~ 30 minutes door-to-intervention at Specialty Care Center.
Less than 60 minutes for rapid identification of a LVO at a primary stroke center.

- Referral hospital ~~H~~ shall contact the appropriate Specialty Care Center ED physician directly without calling for an inpatient bed assignment. ~~Refer to Section IV - SRH-SRC Referral Hospital Buddy System Table.~~

- Specialty Care Centers should route requests directly to the ED physician and bypass their transfer center triage process.

- EMS providers shall make contact with Specialty Care Centers to notify of the estimated time of arrival~~Specialty Care Center base hospital contact~~.

- ~~The~~ Specialty Care Centers shall accept all referred ~~trauma, stroke and~~ STEMI, stroke and trauma patients meeting criteria in this policy unless they are on Internal Disaster as defined in ICEMA Reference #8060 - Requests for Ambulance Redirection and Hospital Diversion ~~Policy~~ (San Bernardino County Only).

- The ~~Specialty Care Center~~ ED physician is the accepting physician at the Specialty Care Center and will activate the ~~internal Trauma,~~ STEMI, ~~or~~ Stroke or Trauma Team according to internal ~~TC, SRC or NSRC~~ policies or protocols.

- The referral hospital ~~RH~~ ED physician will determine the appropriate mode of transportation for the patient.

- Simultaneously call 9-1-1 and utilize the following script to dispatch:

  "This is a c~~C~~ontinuation of c~~C~~are ~~run~~ from ____ hospital to ____ STEMI, Stroke or Trauma Center"

  Fire departments will not be dispatched for 9-1-1 continuation of care calls, the d~~D~~ispatchers will only dispatch transporting ALS ambulances.~~paramedic units, without any fire apparatus.~~

- Referral hospital ~~H~~ ED physician will provide a verbal report to the ED physician at the Specialty Care Center.

- Referral hospital~~H **must**~~ will send all medical records, test results, radiologic evaluations to the Specialty Care Center. DO NOT DELAY TRANSPORT - these documents may be electronically submitted or faxed to the Specialty Care Center.

IV. SPECIAL CONSIDERATIONS FOR REFERRAL HOSPITALS

- If ~~the~~ a patient ~~has arrived~~ arrives ~~at the~~ to a referral hospital ~~RH~~ via EMS field personnel, ~~the RH ED~~ a physician may request that the transporting team remain and immediately transport the patient once minimal stabilization is completed.~~done at the RH.~~

- If a suspected stroke patient presenting to a non-designated stroke center is outside of the tPA administration window (greater than 4.5 hours from "last seen normal"), consider contacting nearest thrombectomy capable or comprehensive stroke center to determine the best destination. Then follow the 9-1-1 script.

- ~~EMT-Ps may only transport patients on Dopamine and Lidocaine drips. Heparin and Integrillin drips are not within the EMT-P scope of practice and require a critical care transport nurse to be in attendance. Unless medically necessary, avoid using medication drips that are outside of the EMT-P scope of practice to avoid any delays in transferring of patients.~~

- Unless medically necessary, avoid using medications or IV drips that are outside of the EMT-P scope of practice to avoid ~~any~~ delays in transferring of patients.

- The ~~RH~~ referral hospital may consider sending one of its nurses or physician with the transporting ALS ambulance~~unit~~ if deemed necessary due to the patient's condition or scope of practice limitations per ICEMA Reference #8010 - Interfacility Transfer Guidelines.

- Do not call 9-1-1 dispatch if the patient requires Critical Care Transport (CCT) or Specialty Care Transport (SCT). The referral hospital must make direct contact with the EMS Providers Dispatch Center.~~Requests for Specialty Care Transport (SCT) (ground or air ambulance) must be made directly with the EMS provider's dispatch center. The request for SCT should be made as early as possible or simultaneously upon patient's arrival so availability of resource can be determined.~~

- ~~Specialty Care Center d~~Diversion is not permitted except for Internal Disaster. However, to avoid prolonged door-to-intervention times ~~Specialty Care Center base hospitals are allowed to facilitate redirecting of EMS patients to nearby SRCs, NSRCs or TCs when the closest Specialty Care Center is over capacity~~ w~~W~~hen STEMI, Stroke and Trauma Centers are over capacity, ~~and to avoid prolonged door-to-intervention times.~~ base hospitals may facilitate alternative STEMI, Stroke or Trauma Centers as the best destination for the patient. ~~Specialty Care Center base hospitals shall~~ Base hospitals must ensure physician to physician contact when facilitating the use of an alternate destination~~. when redirecting patients~~.

~~VI. SPECIALTY CARE CENTER - REFERRAL HOSPITAL BUDDY SYSTEM TABLE~~

~~NEUROVASCULAR STROKE RECEIVING CENTERS (NSRC)~~	~~NEUROVASCULAR STROKE REFERRAL HOSPITALS (NSRH)~~
~~Arrowhead Regional Medical Center~~	• ~~Barstow Community Hospital~~ • ~~Colorado River Medical Center~~ • ~~Community Hospital of San Bernardino~~ • ~~Hi Desert Medical Center~~ • ~~St. Bernardine Medical Center~~ • ~~St. Mary Medical Center~~
~~Desert Regional Medical Center~~	• ~~Colorado River Medical Center~~ • ~~Hi Desert Medical Center~~
~~Kaiser Hospital Foundation - Fontana~~	• ~~Barstow Community Hospital~~ • ~~Victor Valley Global Medical Center~~ • ~~Desert Valley Hospital~~
~~Kaiser Hospital Foundation - Ontario~~	• ~~Chino Valley Medical Center~~ • ~~Montclair Community Hospital~~
~~Loma Linda University Medical Center~~	• ~~Bear Valley Community Hospital~~ • ~~Community Hospital of San Bernardino~~ • ~~J.L. Pettis VA Hospital (Loma Linda VA)~~ • ~~Mountains Community Hospital~~ • ~~St. Bernardine Medical Center~~ • ~~Weed Army Community Hospital at Fort Irwin~~
~~Pomona Valley Hospital Medical Center~~	• ~~Chino Valley Medical Center~~ • ~~Montclair Hospital Medical Center~~
~~Redlands Community Hospital~~	• ~~Bear Valley Community Hospital~~ • ~~J. L. Pettis VA Hospital (Loma Linda VA)~~ • ~~Mountains Community Hospital~~
~~St. Bernardine Medical Center~~	~~Bear Valley Community Hospital~~ ~~Community Hospital of San Bernardino~~ ~~Mountains Community Hospital~~ ~~Victor Valley Global Medical Center~~
~~San Antonio Regional Hospital~~	• ~~Chino Valley Medical Center~~ • ~~Desert Valley Hospital~~ • ~~Montclair Hospital Medical Center~~ • ~~St. Mary Medical Center~~ • ~~Victor Valley Global Medical Center~~

~~STEMI RECEIVING CENTER (SRC)~~	~~STEMI REFERRAL HOSPITAL (SRH)~~
~~Desert Valley Hospital~~	• ~~Barstow Community Hospital~~ • ~~Victor Valley Global Medical Center~~ • ~~Weed Army Community Hospital at Fort Irwin~~
~~Loma Linda University Medical Center~~	• ~~Arrowhead Regional Medical Center~~ • ~~Bear Valley Community Hospital~~ • ~~J. L. Pettis VA Hospital (Loma Linda VA)~~ • ~~Redlands Community Hospital~~
~~Pomona Valley Hospital Medical Center~~	• ~~Chino Valley Medical Center~~ • ~~Montclair Hospital Medical Center~~
~~San Antonio Regional Hospital~~	• ~~Chino Valley Medical Center~~ • ~~Kaiser Ontario Medical Center~~ • ~~Montclair Hospital Medical Center~~
~~St. Bernardine Medical Center~~	• ~~Colorado River Medical Center~~ • ~~Community Hospital of San Bernardino~~ • ~~Kaiser Fontana Medical Center~~ • ~~Mountains Community Hospital~~
~~St. Mary Medical Center~~	• ~~Barstow Community Hospital~~ • ~~Bear Valley Community Hospital~~ • ~~Hi-Desert Medical Center~~ • ~~Robert E. Bush Naval Hospital-29 Palms~~ • ~~Victor Valley Global Medical Center~~

~~TRAUMA CENTER (TC)~~	~~REFERRAL HOSPITAL (SRH)~~
~~Arrowhead Regional Medical Center~~	• ~~Barstow Community Hospital~~ • ~~Chino Valley Medical Center~~ • ~~Desert Valley Medical Center~~ • ~~Kaiser Fontana~~ • ~~Kaiser Ontario~~ • ~~Mammoth Hospital~~ • ~~Montclair Hospital Medical Center~~ • ~~Northern Inyo Hospital~~ • ~~San Antonio Regional Hospital~~ • ~~Southern Inyo Hospital~~ • ~~St. Bernardine Medical Center~~
~~Loma Linda University Medical Center~~	• ~~Bear Valley Community Hospital~~ • ~~Colorado River Medical Center~~ • ~~Hi Desert Medical Center~~ • ~~Mountains Community Hospital~~ • ~~Redlands Community Hospital~~ • ~~J. L. Pettis VA Hospital (Loma Linda VA)~~ • ~~Robert E. Bush Naval Hospital-29 Palms~~ • ~~St. Mary Medical Center~~ • ~~Victor Valley Global Medical Center~~ • ~~Weed Army Hospital~~
~~Loma Linda University Children's Hospital~~	• ~~Regional Pediatric Trauma Center~~

V~~H~~. REFERENCES

Number	Name
6070	~~Cardiovascular~~ ST Elevation Myocardial Infarction Critical Care System Designation~~Receiving Centers Destination Policy~~ (San Bernardino County Only)
6100	~~Neurovascular~~ Stroke Critical Care System Designation~~Receiving Centers Destination Policy~~ (San Bernardino County Only)
8010	Interfacility Transfer Guidelines
8060	Requests for Ambulance Redirection and Hospital Diversion~~ Policy~~ (San Bernardino County Only)
15030	Trauma Triage Criteria

DESTINATION POLICY

I. PURPOSE

To ~~ensure~~ establish standards for the transportation of 9-1-1 patients to the most appropriate receiving facility that has the staff and resources to deliver definitive care to the patient. Destination may be determined by patient's need for specialty care services, example STEMI, Stroke and Trauma centers~~such as those provided by designated trauma, STEMI, Stroke, and Trauma Centers~~.

~~II. DEFINITIONS~~

~~**Aircraft Dispatch Center (ADC)**: An ICEMA designated dispatch center which dispatches and coordinates air ambulance and/or air rescue aircraft response to the scene of a medical emergency within the ICEMA region.~~

~~**Adult Patient**: A person who is or is appearing to be older than 15 years of age.~~

~~**Burn Patient**: Patients meeting ICEMA's burn classifications minor, moderate or major, per ICEMA Reference #11100 - Burn - Adult (15 years of age or older) and #14070 - Burn - Pediatrics.~~

~~**Critical Trauma Patient (CTP)**: Patients meeting ICEMA's trauma triage criteria per ICEMA Reference #15030 - Trauma Triage Criteria.~~

~~**Neurovascular Stroke Receiving Center (NSRC)**: A licensed acute care hospital designated by ICEMA's Governing Board as a receiving hospital for patients triaged as having a cerebral vascular event requiring hospitalization for treatment, evaluation and /or management of stroke.~~

~~**Neurovascular Stroke Base Hospital**: Facilities that have been designated by ICEMA's Governing Board as a Neurovascular Receiving Hospital that also function as a base hospital.~~

~~**Pediatric Patient**: A person who is or is appearing to be under 15 years of age.~~

~~**Pediatric Trauma Center**: A licensed acute care hospital which usually treats (but is not limited to) persons under 15 years of age, designated by ICEMA's Governing Board that meets all relevant criteria, and has been designated as a pediatric trauma hospital, according to California Code of Regulations, Title 22, Division 9, Chapter 7, Section 100261.~~

~~**ROSC**: Return of spontaneous circulation.~~

~~**Specialty Care Center**: ICEMA designated trauma, STEMI, or stroke receiving centers.~~

~~**ST Elevation Myocardial Infarction (STEMI)**: A medical term for a type of myocardial infarction that results in an elevation of the ST Segment on a 12-lead electro-cardiogram (ECG).~~

~~**STEMI Base Hospital**: Facilities that have emergency interventional cardiac catheterization capabilities that also function as a base hospital.~~

~~**STEMI Receiving Center (SRC)**: A licensed general acute care hospital designated by ICEMA's Governing Board as a STEMI Receiving Center that has emergency interventional cardiac catheterization capabilities.~~

~~**STEMI Referring Hospital**: Facilities that do not have emergency interventional cardiac catheterization capabilities.~~

~~**Trauma Center**: A licensed general acute care hospital designated by ICEMA's Governing Board as a trauma hospital in accordance with State laws and regulations.~~

III~~I~~. POLICY

If the patient's condition is stable, the most appropriate destination may be the facility associated with their healthcare plan and primary care physician.

If a patient requires specialty care services at an ICEMA designated STEMI, Stroke, or Trauma Receiving ~~or other approved specialty~~ Center, the EMS provider may bypass closer facilities ~~for another facility having the specialty services needed by the patient~~. ~~Destination for specialty patients requires contact with an appropriate specialty base hospital~~.

Destination decisions should be based on patient condition or patient, guardian, family or law enforcement request. Patients who are unable to request a destination ~~,~~ or who ~~without a~~do not have a preference shall~~ould~~ be taken to the closest hospital unless their condition requires specialty services described below.

~~If directed by the base hospital physician, an EMS transport provider may bypass a closer facility.~~

III~~V~~. GENERAL CONSIDERATIONS

- Closest Hospital
  - All patients requiring immediate medical attention for difficult to manage airways or life threatening conditions.
  - Patients that do not have a destination preference.

- Patient Request
  - Honor ~~P~~patient requests ~~should be honored~~ if possible and when appropriate.
  - ~~Patient requests for specific destination may be accommodated i~~If patient is medically stable and the destination is not significantly beyond the primary response area of the EMS transportation provider.
  - ~~If a patient~~ EMS field personnel must obtain an AMA and notify the base hospital if a patient is in need of STEMI, stroke, or trauma services and refuses transport to a Specialty Care Center, or choses to bypass the recommended Specialty Care Center ~~SRC, EMS field personnel must obtain an AMA and notify the STEMI base hospital~~.
- Higher Level of Care
  - Is~~May be~~ dictated by patient condition. ~~and base hospital direction.~~
  - ~~Allows~~ ALS providers may~~to~~ bypass a closer facility and transport to~~in favor of~~ a facility that has the capability of to provide appropriate specialty care based on the patient's condition. ~~a specialty response to the patient's condition.~~
- Base Hospital
  - Paramedics are encouraged to contact base hospitals for consult on destination for patients with special considerations.
  - ~~Final authority for destination determination is the base hospital.~~
  - ~~Base hospital physician may override prior destination decisions made by the paramedic (EMT-P)or protocol.~~

IV. PSYCHIATRIC HOLDS

- All patients with a medical complaint on a behavioral health hold ~~psychiatric hold~~ (5150) require medical evaluation, ~~and~~ treatment and shall be transported to the closest acute care hospital for medical clearance.
- Any acute care hospital is capable of medically clearing ~~psychiatric~~ behavioral health patients.
- Patients on a ~~psychiatric~~ 5150 hold with no medical complaints or conditions, may be released to law enforcement for transport directly to a ~~psychiatric~~ behavioral health facility. ~~that has the capacity to accept the patient.~~

~~V. DIVERSION (Refer to ICEMA Reference #8060 – Requests for Hospital Diversion Policy - San Bernardino County Only)~~

- ~~Diversion of ALS ambulances is limited by ICEMA, refer to ICEMA Reference #8060 - Requests for Hospital Diversion Policy (San Bernardino County Only).~~
- ~~Ambulance diversion to another acute care hospital is not allowed in the ICEMA region based on hospital census or staffing.~~
- ~~A patient may be directed to a hospital on diversion if it is in the best interest of the patient and the hospital has not declared an internal disaster.~~
- ~~The base hospital determines final destination of Advanced Life Support (ALS) or Limited Advanced Life Support (LALS) patients.~~
- ~~Basic Life Support (BLS) ambulances may not be diverted from their intended destination unless the hospital is on internal disaster.~~

V~~I~~. SPECIALTY CARE CENTERS

~~Specialty Care Center base hospital contact is **mandatory** for patients going to trauma, STEMI or stroke centers; and are the only authority that may change destination to another receiving hospital, trauma, STEMI or stroke center.~~

- STEMI Receiving Centers~~SRCs~~: (Refer to ICEMA Reference #11060 - Suspected Acute Myocardial Infraction (AMI)).

  STEMI Receiving Centers ~~SRC is~~ are the ~~preferred~~ appropriate destination for identified STEMI ~~identified~~ patients. ~~based on machine interpretation of field 12-lead ECG, verified by EMT-Ps and approved by base hospital physician.~~

  - Once a patient with a STEMI has been identified, ~~contact STEMI base hospital for destination decision and~~ make early STEMI notification to the STEMI Receiving Center and prepare patient for expeditious transport. ~~Total transport time to the SRC is thirty (30) minutes or less. Base hospital physician may override this requirement and authorize transport to SRC with transport time greater than thirty (30) minutes.~~
  - ROSC patients of unknown or suspected cardiac etiology, regardless of 12-lead ECG reading, should be transported to the closest STEMI Receiving Center. If the closest STEMI Receiving Center is greater than 30 minutes, transportation to the closest receiving hospital may be appropriate.
  - ~~In Inyo and Mono Counties, the assigned base hospital should be contacted for STEMI consultation.~~

- ~~In addition, patients with the following factors should be transported to the closest SRC. STEMI base hospital contact and consultation is required:~~
  - ~~Obvious contraindication to thrombolytic therapy.~~
  - ~~Cardiopulmonary arrest with sustained ROSC. Refer to ICEMA Reference #11070 - Cardiac Arrest - Adult.~~

- STEMI patients with ~~the following factors~~difficult to manage airways sh~~ould~~all be transported to the closest ~~paramedic~~ receiving hospital. ~~STEMI base hospital contact and consultation is required:~~
  - ~~Unmanageable~~ Difficult to manage airway, ~~unstable cardiopulmonary condition, or in cardiopulmonary arrest.~~
  - ~~Malignant ventricular fibrillation, ventricular tachycardia, second degree type II heart block and third degree heart block.~~
  - ~~Hemodynamic instability as exhibited by systolic blood pressure less than 90 and/or signs of inadequate tissue perfusion.~~

- Stroke Receiving Centers~~NSRCs~~: Refer to ICEMA Reference #11110 - Stroke Treatment - Adult (15 years of age and older).
  - Stroke Receiving Centers are the appropriate destination for suspected stroke patients identified by using the mLAPSS triage criteria and LAMS Score.
  - ~~Suspected stroke patients eligible for transport to NSRC will be identified using the mLAPSS triage criteria.~~
  - Prepare the patient for expeditious transport o~~O~~nce a ~~patient with a strok~~positive mLAPSS ~~has~~is ~~been~~ identified~~,~~ and LAMS scale has been completed. ~~In Inyo and Mono Counties, the assigned base hospital should be contacted for stroke consultation.~~
  - ~~If NSRC base hospital, is different from the NSRC,~~ Nnotify the Stroke Receiving Center ~~NSRC~~ of the patient's pending arrival as soon as possible to allow timely notification of the stroke team.
  - Identified acute stroke patients with "last seen normal" time plus transport time less than ~~twelve (12)~~ 24 hours, or a "wake-up" stroke, transport to closest Stroke Receiving Center ~~NSRC~~.
  - ~~The following factor should be considered in determining choice of destination for acute stroke patients. NSRC base hospital contact and consultation is mandatory:~~

- ~~Patients with obvious contraindication to thrombolytic therapy should be strongly considered for transport to closest NSRC.~~

- Transport to closest receiving hospital for patients ~~Identified acute stroke patients~~ with "last seen normal" time equaling greater than ~~twelve (12)~~ 24 hours~~if "last seen normal time" is unknown, transport to closest paramedic receiving hospital~~. Base hospital may be contacted to assist with the destination decision.

- Patients with ~~the following factors~~difficult to manage airways sh~~ould~~all be transported to the closest receiving hospital. ~~NSRC base hospital contact and consultation is required:~~

  - ~~Unmanageable airway.~~, ~~unstable cardiopulmonary condition, or in cardiopulmonary arrest.~~

  - ~~Hemodynamic instability and exhibiting signs of inadequate tissue perfusion.~~

- Trauma: (Refer to ICEMA Reference #15030 - Trauma Triage Criteria.)

  - Adult patients meeting trauma triage criteria shall be transported to the closest Trauma Center.

  - ~~Transport p~~Pediatric patients meeting trauma triage criteria shall be transported to a pediatric Trauma Center when there is less than a ~~twenty (~~20~~)~~ minute difference in transport time between the pediatric Trauma Center and the closest Trauma Center.

  - ~~Transport patients meeting the physiologic and/or anatomic criteria to the closest Trauma Center.~~

  - ~~Patients meeting the mechanism of injury and either the physiologic or anatomic criteria will be transport to the closest Trauma Center.~~

  - ~~If there are~~ have no associated physiologic or anatomic criteria~~,~~ and the potential trauma ~~patient meets one or more of the mechanisms of injury contact a trauma base hospital to determine patient destination. Patient may be directed to a non-trauma receiving hospital.~~ For patients who meet mechanism of injury criteria per ICEMA Reference #15030 - Trauma Triage Criteria, but have no associated physiologic or anatomic criteria, paramedics are encouraged to contact a trauma base hospital for consultation to determine patient destination. In some cases, trauma base hospital may direct patient to a non-trauma receiving hospital.

- Make trauma base hospital contact to determine if a Trauma Center should be the destination for patients not meeting the trauma triage criteria but meeting age and/or co-morbid factors.

- Patients with difficult to manage airways shall be transported to the closest receiving hospital.

- Traumatic cardiac arrest patients with a transport time greater than 15 minutes to a Trauma Center, may be transported to the closest receiving hospital, after consult with a Trauma Base Hospital. ~~Patients with unmanageable airway or traumatic cardiac arrest should be transported to the closest receiving hospital if indicated. Trauma base hospital contact shall be made.~~

- Burn: (Refer to ICEMA Reference #15030 - Trauma Triage Criteria.)

  - Transport any ~~B~~burn patients who meet trauma triage criteria ~~meeting the physiologic or anatomic criteria for CTP shall be transported~~ to the closest Trauma Center.

  - ~~Burn patients meeting minor or moderate classifications shall be transported to the closest receiving hospital.~~

  - ~~Burn patients meeting major burn classification may be transported to the closest burn center (in San Bernardino County contact Arrowhead Regional Medical Center).~~

  - Transport ~~P~~pediatric burn patients that meet trauma triage criteria ~~identified as a CTP should always be transported~~ to ~~the closest~~ a pediatric Trauma Center ~~with or without burn capabilities~~ if transport time is less than 20 minutes. ~~When there is less than twenty (20) minutes difference in transport time, a pediatric Trauma Center is the preferred destination.~~

  - ~~Burn patients with respiratory compromise, or potential for such, will be transported to the closest acute care receiving hospital for airway stabilization.~~

  - Transport minor and moderate burns to the closest receiving hospital.

  - Transport major burns to the closest burn center if transport time is less than 20 minutes.

  - Transport burn patients with respiratory compromise or at high risk for developing respiratory distress to the closest receiving hospital.

VI~~I~~. INTERFACILITY TRANSFER (Refer to ICEMA Reference #8010 - Interfacility Transfer Guidelines)

- Patients will be transported to the designated receiving facility. If the patient's condition deteriorates significantly while en route to the designated facility the patient may be diverted to the closest receiving hospital for stabilization. ~~Patients will go to the designated destination facility regardless of patients' prior condition. Patients may only be diverted if patients' condition deteriorates significantly while in the care of EMS.~~

- Advanced EMTs and EMT-Ps may initiate ~~prior to contact~~ protocols prior to contacting the base hospital for change of destination. ~~if the patient's condition deteriorates significantly.~~

VII~~I~~. EMS AIRCRAFT ROTATION AND DESTINATION (San Bernardino County Only)

- All EMS Aircraft requests from the field in San Bernardino County will be dispatched by the ICEMA designated Aircraft Dispatch Center (ADC).

- The destination may be changed by the EMS providers based on patient requirements for specialty centers.

- Refer to ICEMA Reference #8070 - Aircraft Rotation Policy (San Bernardino County Only).

VIII~~X~~. REFERENCES

Number	Name
~~5050~~	~~Medical Response to a Multi-Casualty Incident Policy~~
~~6070~~	~~Cardiovascular STEMI Receiving Centers~~
8010	Interfacility Transfer Guidelines
8060	Requests for Ambulance Redirection and Hospital Diversion ~~Policy~~ (San Bernardino County Only)
8070	Aircraft Rotation Policy (San Bernardino County Only)
11060	Suspected Acute Myocardial Infraction (AMI)
~~11070~~	~~Cardiac Arrest - Adult~~
~~11100~~	~~Burn - Adult (15 years of age or older)~~
11110	Stroke Treatment - Adult
~~14070~~	~~Burn - Pediatrics~~
15030	Trauma Triage Criteria

REPORTING INCIDENTS OF SUSPECTED ABUSE POLICY

I. PURPOSE

Prehospital personnel are required to report incidents of suspected neglect or abusive behavior towards children, dependent adults or elders. These reporting duties are individual, and no supervisor or administrator may impede or inhibit such reporting duties and no person making such report shall be subject to any sanction for making such report.

When two or more persons who are required to report are present at scene, and jointly have knowledge of a suspected abuse, and when there is agreement among them, the telephone report may be made by a member of the team selected by mutual agreement and a single written report may be made and signed by the selected member of the reporting team. Any member who has knowledge that the member designated to report has failed to do so, shall thereafter make the report.

Information given to hospital personnel does not fulfill the required reporting mandated from the state. The prehospital caregivers must make their own report.

II. CHILD ABUSE/NEGLECT

Suspicion of child abuse/neglect is to be reported by prehospital personnel by telephone to the Child Abuse Hotline immediately or as soon as possible. Be prepared to give the following information:

- ~~1.~~ Name of person making report.
- ~~2.~~ Name of child.
- ~~3.~~ Present location of child.
- ~~4.~~ Nature and extent of the abuse/neglect.
- ~~5.~~ Location where incident occurred, if known.
- ~~6.~~ Other information as requested.

San Bernardino County: 1-800-827-8724 24-hour number **or** 1-909-384-9233

Inyo County: 1-760-872-1727 M-F 8am - 5pm **or** 911 after hours

Mono County: 1-800-340-5411 M-F 8am - 5pm **or** 1-760-932-7755 after hours

The phone report must be followed within 36 hours by a written report on the "**Suspected Child Abuse Report**" form. Mail this to:

San Bernardino County: CPS
412 W. Hospitality Lane
San Bernardino, CA 92408

Inyo County: CPS
162 Grove St. Suite "J"
Bishop, CA 93514

Mono County: Department of Social Services
PO Box 576
Bridgeport, CA 93517

The identity of any person who files a report shall be confidential and disclosed only between child protective agencies, or to counsel representing a child protection agency, or to the district attorney in a criminal prose.

III. DEPENDENT ADULT AND ELDER ABUSE/NEGLECT

Suspicion of dependent adult and elder abuse/neglect should be reported as soon as possible by telephone. Be prepared to give the following information:

- ~~1.~~ Name of person making report.
- ~~2.~~ Name, address and age of the dependent adult or elder.
- ~~3.~~ Nature and extent of person's condition.
- ~~4.~~ Other information, including information that led the reporter to suspect either abuse or neglect.

San Bernardino County: 1-877-565-2020 24-hour number

Inyo County: 1-760-872-1727 M-F 8 am - 5 pm **or** 911 after hours

Mono County: 1-800-340-5411 M-F 8 am - 5 pm **or** 1-760-932-7755 after hours

The phone report must be followed by a written report within 48 hours of the telephone report on the "**Report of Suspected Dependent Adult/Elder Abuse**" form. Mail this report to:

San Bernardino County: Department of Aging/Adult Services
784 E. Hospitality Lane
San Bernardino, CA 92415
~~881 West Redlands Blvd. *Attn:* Central Intake~~
~~Redlands, CA 92373~~

Fax number 1-909-891-9077~~388-6718~~

Inyo County: Social Services
162 Grove St. Suite "J"
Bishop, CA 93514

Mono County: Department of Social Services
PO Box 576
Bridgeport, CA 93517

The identity of all persons who report shall be confidential and disclosed only by court order or between elder protective agencies.

San Bernardino County Department of Aging and Adult Services Long-Term Care Ombudsman Program

Ombudsmen are independent, trained and certified advocates for residents living in long-term care facilities. Certified Ombudsmen are authorized by Federal and State law to receive, investigate and resolve complaints made by or on behalf of residents living in skilled nursing or assisted living facilities for the elderly. Ombudsmen work with licensing and other regulatory agencies to support Resident Rights and achieve the best possible quality of life for all long-term care residents. Ombudsman services are confidential and free of charge.

Administrative Office **Receives All Reports of Abuse:** **San Bernardino County Department of Aging and Adult Services** **686 E. Mill St.** **San Bernardino, CA 92415-0640** **909-891-3928 Office** **1-866-229-0284 Reporting** **Fax 909-891-3957**	**The State CRISIS line number:** **1-800-231-4024** **This CRISIS line is available to take calls and refer complaints 24 hours a day, 7 days a week.**

SUSPECTED ACUTE MYOCARDIAL INFARCTION (AMI)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Chest pain (typical or atypical).
- Syncopal episode.
- History of previous AMI, Angina, heart disease, or other associated risk factors.

II. BLS INTERVENTIONS

- Recognition of signs/symptoms of suspected AMI.
- Reduce anxiety, allow patient to assume position of comfort.
- Oxygen as clinically indicated.
- Obtain oxygen~~O_2~~ saturation.
- May assist patient with self-administration of Nitroglycerin and/or Aspirin.

III. LIMITED ALS (LALS) INTERVENTIONS

- Aspirin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider early vascular access.
- For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, administer 300 ml NS bolus, may repeat.
- Nitroglycerin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider establishing a saline lock enroute on same side as initial IV.
- Complete thrombolytic checklist, if time permits.
- Contact base hospital.

IV. ALS INTERVENTIONS

- Aspirin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider early vascular access.
- For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, administer 300 ml NS bolus, may repeat.
- 12-Lead Technology:
  - Obtain 12-lead ECG. Do not disconnect 12-lead cables until necessary for transport.
  - If signs of inadequate tissue perfusion or if inferior wall infarct is suspected, obtain a right-sided 12-lead (V4R).
  - If right ventricular infarct (RVI) is suspected with signs of inadequate tissue perfusion, consider 300 ml NS bolus, may repeat. Early consultation with base hospital or receiving hospital in rural areas is recommended. (Nitrates are contraindicated in the presence of RVI or hypotension.)
  - With documented ST segment elevation in two (2) or more contiguous leads~~, contact STEMI base hospital for destination decision~~ make early STEMI notification to the STEMI Receiving Center while preparing patient for expeditious transport, refer to ICEMA Reference #6070 - ST Elevation Myocardial Infarction Critical Care System Designation.~~Cardiovascular "STEMI" Receiving Centers~~. In Inyo and Mono Counties, the assigned base hospital should be contacted for STEMI consultation.
  - Repeat 12-lead ECG at regular intervals, but do not delay transport of patient. If patient is placed on a different cardiac monitor for transport, transporting provider should obtain an initial 12-lead on their cardiac monitor and leave 12-lead cables in place throughout transport.
  - EMS field personnel shall ensure that a copy of the 12-lead ECG is ~~scanned~~ uploaded or attached as a permanent part of the patient's ePCR~~. or O1A and submit to ICEMA if patient is going to a SRC as a suspected STEMI.~~
- Nitroglycerin per ICEMA Reference #7040 - Medication - Standard Orders. Utilize Fentanyl for cardiac chest pain control when Nitroglycerin is contraindicated.

- Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders. Consider concurrent administration of Nitroglycerin with Fentanyl if there is no cardiac chest pain relief from the initial Nitroglycerin administration. Contact base hospital for further Fentanyl orders.

- Consider establishing a saline lock as a secondary IV site.

- ~~Make early STEMI notification to the STEMI Receiving Center.~~

- ~~In Radio Communication Failure (RCF), may administer up to an additional 100 mcg of Fentanyl in 50 mcg increments with signs of adequate tissue perfusion.~~

V. REFERENCES

Number	Name
6070	ST Elevation Myocardial Infarction Critical Care System Designation~~Cardiovascular "STEMI" Receiving Centers~~
7040	Medication - Standard Orders

CARDIAC ARREST - ADULT

High performance (HP) CPR is an organized approach to significantly improve the chance of survival for patients who suffer an out-of-hospital cardiac arrest (OHCA). Return of spontaneous circulation (ROSC) is resumption of sustained perfusing cardiac activity associated with significant respiratory effort after cardiac arrest. Signs of ROSC include breathing, coughing, patient movement and a palpable pulse, or a measurable blood pressure without the use of an automatic compression device.

The principles for HP CPR include:

- Minimize interruptions of chest compressions.
- Ensure proper depth of chest compressions of 2" - 2.5" allowing full chest recoil (no leaning on chest).
- Proper chest compression rate at 100 - 120 per minute.
- Avoid compressor fatigue by rotating compressors every two (2) minutes. Ventilations shall be sufficient to cause minimal chest rise, avoiding hyperventilation as it can decrease survival.

Advanced airways can be safely delayed in OHCA patients until ROSC is achieved if the airway is effectively managed by BLS Interventions. BVM offers excellent oxygenation and ventilation without disrupting high quality compressions.

Base hospital contact is not required to terminate resuscitative measures, if the patient meets criteria set forth below in the Termination of Efforts in the Prehospital Setting.

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting.

II. BLS INTERVENTIONS

- Assess patient, begin HP CPR ~~according to current AHA Guidelines,~~ and maintain appropriate BLS airway measures.

  ~~➢ Compression rate shall be 100 per minute utilizing 30:2 compression-to-ventilation ratio for synchronous CPR prior to placement of advanced airway.~~

  ~~➢ Ventilatory volumes shall be sufficient to cause adequate chest rise.~~

- Place patient on AED, if available. To minimize the "hands off" interval before a rhythm analysis/shock, complete chest compression cycle without an added pause for ventilations or pulse check just before rhythm analysis.

- If shock is advised, perform HP CPR compressions while AED is charging. Remove hands from patient and deliver shock then immediately resume uninterrupted HP CPR for two (2) minutes.

- Do not delay HP CPR for post-shock pulse check or a rhythm analysis.

- After two (2) minutes of HP CPR, analyze rhythm using AED while checking for pulse.

III. LIMITED ALS (LALS) INTERVENTIONS

~~Initiate CPR while applying the AED.~~

- Perform activities identified in the BLS interventions.

- Establish peripheral intravenous access and administer a 500 ml bolus of normal saline (NS).

- BLS airway with BVM is the airway of choice during active HP CPR.~~Establish advanced airway when resources are available, with minimal interruption to chest compressions. After advanced airway established, compressions would then be continued at 100 per minute without pauses during ventilations.~~

- ~~Establish peripheral intravenous access and administer a 500 ml bolus of normal saline (NS).~~

- ~~Refer to ICEMA Reference #12010 - Determination of Death on Scene.~~

~~**NOTE**: Base hospital contact is required to terminate resuscitative measures.~~

IV. ALS INTERVENTIONS

- Initiate HP CPR and continue appropriate BLS Interventions while applying the cardiac monitor without interruption to chest compressions.

- Determine cardiac rhythm and defibrillate if indicated. After defibrillation, immediately began HP CPR. Begin a two (2) minute cycle of HP CPR.

- Obtain IV/IO access.

- ~~Establish advanced airway when resources are available, with minimal interruption to chest compressions. After advanced airway established, compressions would then be continued at 100 per minute without pauses during ventilations. Ventilations should be given at a rate of one (1) breath every six (6) to eight (8) seconds.~~

- BLS airways should be maintained during active CPR. Endotracheal intubation is the advanced airway of choice if BLS airway does not provide adequate ventilation. Establish advanced airway per ICEMA Reference #10190 - Procedure - Standard Orders without interruption to chest compressions.

- Utilize continuous quantitative waveform capnography, for the ~~confirmation and~~ monitoring of patients airway, the effectiveness of chest compressions and for possible early identification of ROSC. ~~endotracheal tube placement and for assessment of ROSC and perfusion status.~~ Document the waveform ~~shape of the wave~~ and the capnography number in mm HG in the ePCR.

  NOTE: Capnography **shall** be used for all cardiac arrest patients.

- Insert NG/OG tube to relieve gastric distension per ICEMA Reference #10190 - Procedure - Standard Orders.

- ~~If sustained ROSC is achieved, obtain a 12-lead ECG and contact a STEMI base hospital and transport to a SRC, refer to ICEMA Reference #8130 - Destination Policy.~~

- ~~Utilize continuous waveform capnography, to identify loss of circulation.~~

- ~~Base hospital physician may order additional medications or interventions as indicated by patient condition.~~

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- Defibrillate at 360 joules for monophasic or biphasic equivalent per manufacture. If biphasic equivalent is unknown use maximum available.

- Perform HP CPR immediately after each defibrillation for two (2) minutes, ~~after each defibrillation,~~ without ~~delaying to~~ assessing the post-defibrillation rhythm.

- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders every five (5) minutes, without interruption of HP CPR ~~during each two (2) minute cycle of CPR after every defibrillation~~ unless capnography indicates possible ROSC.

- Reassess rhythm for no more than ten (10) seconds after each two (2) minute cycle of HP CPR. If VF/VT persists, defibrillate as above.

- After two (2) cycles of HP CPR, consider administering:

  Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders, may repeat.

- If patient remains in pulseless VF/VT after 20 minutes ~~five (5) cycles~~ of CPR, consult base hospital.

Pulseless Electrical Activity (PEA) or Asystole

- Assess for reversible causes and initiate treatment.

- Continue HP CPR with evaluation of rhythm (no more than 10 seconds) every two (2) minutes.

- Administer fluid bolus of 300 ml NS IV, may repeat.

- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders every 5 (five) minutes ~~during each two (2) minute cycle of CPR after each rhythm evaluation~~without interruption of HP CPR.

Stable ROSC

- Obtain a 12-lead ECG, regardless of 12-lead ECG reading, transport to the closest STEMI Receiving Center, per ICEMA Reference #8130 - Destination Policy.

- Monitor ventilation to a capnography value between 35 mm Hg and 45 mm Hg.

- Utilize continuous waveform capnography to identify loss of circulation.

- For persistent profound shock and hypotension, administer Push Dose Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.

Termination of Efforts in the Prehospital Setting

- The decision to terminate efforts in the field should take into consideration, first, the safety of personnel on scene, and then family and cultural considerations.

- Consider terminating resuscitative efforts in the field if ~~ALL~~ any of the following criteria are met after 20 minutes of HP CPR with ALS Interventions:

- No shocks were delivered.
- Arrest not witnessed by EMS field personnel.
- No ROSC ~~after a minimum of ten (10) minutes of advance cardiac life support (ACLS)~~.
- Capnography waveform reading less than 15 mm Hg.
- Persistent asystole, agonal rhythm or pulseless electrical activity (PEA) at a rate of less than 40 bpm.

- If patient has any signs of pending ROSC (i.e., capnography waveform trending upwards, PEA greater than 40 bpm), then consider transportation to a STEMI Receiving Center.
- Contact local law enforcement to advise of prehospital determination of death.
- Provide comfort and care for survivors.
- ~~Base hospital contact is required to terminate resuscitative measures. A copy of the ECG should be attached to the patient care report for documentation purposes.~~

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
8130	Destination Policy
10190	Procedure - Standard Orders~~ICEMA Approved Skills~~
12010	Determination of Death on Scene

STROKE TREATMENT - ADULT

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Patient exhibiting signs/symptoms of a possible stroke. These signs may include: speech disturbances, altered level of consciousness, parasthesias, new onset seizures, dizziness unilateral weakness and visual disturbances.

II. BLS INTERVENTIONS

- Obtain patient oxygen saturation on room air. Titrate oxygen if clinically indicated, to maintain an oxygen saturation of 94% per ICEMA Reference #7040 - Medication - Standard Orders.

- Obtain blood glucose.

III. LIMITED ALS (LALS)/ALS INTERVENTIONS

- Perform activities identified in the BLS Interventions.

- Obtain v~~V~~ascular access.

- ~~Obtain blood glucose.~~

- **Modified Los Angeles County Prehospital Stroke Screen (mLAPSS)**: A screening tool used by EMS field personnel to assist in identifying patients who may be having a stroke.

  mLAPSS Criteria: The patient is **mLAPSS positive**, if "yes" on Criteria #1 - 4 and exhibits unilateral weakness on Criteria #6.

mLAPSS Criteria	**Yes**	**No**	
1. Age over 17 years?			
2. No prior history of seizure disorder?			
3. New onset of neurologic symptoms in last 24 hours?			
4. Patient was ambulatory at baseline prior to event?			
5. Blood glucose between 60 and 400?			
6. Exam (*look for obvious asymmetry):*	Normal-Bilaterally	Right	Left
• Facial Smile/Grimace	☐	☐ Droop	☐ Droop

		☐ Normal	☐ Normal
• Grip	☐	☐ Weak Grip ☐ Normal	☐ Weak Grip ☐ Normal
	☐	☐ No Grip ☐ Normal	☐ No Grip ☐ Normal
• Arm Weakness	☐	☐ Drifts Down ☐ Normal	☐ Drifts Down ☐ Normal
		☐ Falls Down Rapidly ☐ Normal	☐ Falls Down Rapidly ☐ Normal

- ~~Ask when "last seen normal" or without stroke symptoms.~~

- ~~If "last seen normal" plus transport time is greater than twelve (12) hours, transport to the closest receiving hospital.~~

- ~~If "last seen normal" plus transport time is less than twelve (12) hours, or a "wake-up stroke", transport to closest NSRC.~~

- If patient is mLAPSS positive, use LAMS to determine the stroke severity.

- **Los Angeles Motor Score (LAMS)**: A scoring tool used by EMS providers to determine the severity of stroke on patients who are mLAPSS positive. If the total LAMS score is four (4) or greater, consider Large Vessel Occlusion (LVO).

LAMS Score Criteria		
FACE	0	Both sides move normally
	1	One side is weak or flaccid
ARM	0	Both sides move normally
	1	One side is weak
	2	One side is flaccid/does not move
GRIP	0	Both sides move normally
	1	One side is weak
	2	One side is flaccid/does not move
TOTAL SCORE		

- Ask when "last seen normal" or without stroke symptoms.

- If "last seen normal" plus transport time is less than 24 hours, or a "wake-up stroke", transport to closest- Stroke Receiving Center.~~NSRC~~.

- If "last seen normal" plus transport time is greater than 24 hours, transport to the closest receiving hospital.

- ~~In San Bernardino County, if Stroke Scale is positive, initiate "Stroke Alert", contact NSRC base hospital and transport immediately.~~

- If mLAPSS negative and stroke is still suspected, consult~~tact~~ ~~Stroke receiving NSRC~~ base hospital for destination.

- To ensure that there is no delay in treatment ~~O~~obtain and document on scene family phone number.

  - If family member is not present, it is recommended that the EMS field personnel bring the patients cell phone.

- Consider 12-lead ECG (ALS only).

- **Thrombolytic Assessment**: If time is available, and the patient or family can provide the information, assess the patient using the criteria listed below and report to ED personnel:

Thrombolytic Assessment Criteria	**Yes**	**No**
Onset greater than 4.5 hours?		
History of recent bleeding?		
Use of anticoagulant?		
Major surgery or serious trauma in the previous ~~fourteen (~~14~~)~~ days?		
Sustained systolic blood pressure above 185 mm Hg?		
Recent stroke or intracranial hemorrhage?		

IV. REFERENCE

Number	**Name**
7040	Medication - Standard Orders

PAIN MANAGEMENT - ADULT

I. PURPOSE

To define the prehospital use of analgesics for pain management to patients with moderate to severe pain.

II. FIELD ASSESSMENT/TREATMENT INDICATORS

The prehospital use of analgesics should be considered for the following patients who~~that~~ have a Glasgow Coma Score (GCS) of 15 or at a baseline mentation and have a pain score of five (5) or higher on a scale of 1 - 10:

- Acute traumatic injuries
- Acute abdominal/flank pain
- Burn injuries
- Cancer pain
- Sickle Cell Crisis

Special consideration must be given to the type of pain, the patient's overall condition, allergies, current medical conditions, and drug contraindications when deciding if pain management is appropriate and which pain medication to be administered.

III. BLS INTERVENTIONS

- Attempt to calm, reduce anxiety, and allow patient to assume position of comfort.
- Utilize ice, immobilize and splint the affected area as indicated.
- Assess patients level of pain using the pain scale from 1 - 10 with 10 being the worst pain.
- Administer oxygen as clinically indicated per ICEMA Reference # 9010 - General Patient Guidelines.

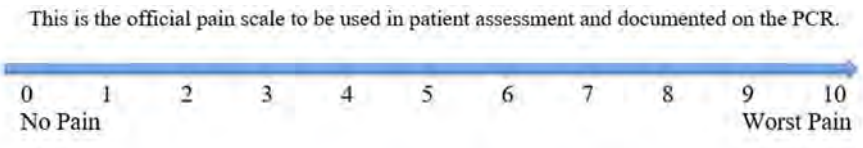
IV. ALS INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Consider early vascular access.
- Place on cardiac monitor. Obtain capnography, monitoring waveform and numerical value.
- Monitor and assess patient vital signs prior to administration of any analgesic.
- For treatment of pain as needed with a blood pressure of greater than 100 systolic:
  - Fentanyl per ICEMA Reference # 7040 - Medication - Standard Orders, **or**
  - Ketamine per ICEMA Reference # 7040 - Medication - Standard Orders.
- For treatment of pain as needed with a blood pressure less than 100 systolic:
  - Ketamine per ICEMA Reference # 7040 - Medication - Standard Orders.
- After administration of any pain medication, continuous monitoring of patients ECG and capnography is required.
- Reassess and document vital signs, capnography, and pain scores every five (5) minutes.

V. SPECIAL CONSIDERATIONS

- Once a pain medication has been administered via route of choice, changing route (i.e., from IM to IV) requires base hospital order.
- Shifting from one analgesic while treating a patient requires base hospital contact.

Pain management should only be considered for patients that have a pain score of five (5) or higher on the below scale of 1 - 10.



VI. REFERENCES

Number	Name
7040	Medication - Standard Orders
9010	General Patient Guidelines

DETERMINATION OF DEATH ON SCENE

I. PURPOSE

To identify situations when an EMT, AEMT or EMT-P may be called upon to determine death on scene.

II. POLICY

An EMT, AEMT or EMT-P may determine death on scene if **pulselessness and apnea** are present with any of the following criteria. The EMT-P is authorized to discontinue BLS CPR initiated at scene if a patient falls into the category of obvious death. ~~If any ALS procedures are initiated, only the base hospital physician/designee may determine death in the field.~~ In any situation where there may be doubt as to the clinical findings of the patient, BLS CPR must be initiated and the base hospital contacted.~~, refer to ICEMA Reference #12020 - Withholding Resuscitate Measures.~~ When death is determined, the County Coroner must be notified along with the appropriate law enforcement agency.

III. DETERMINATION OF DEATH CRITERIA

- Decomposition.
- Obvious signs of rigor mortis such as rigidity or stiffening of muscular tissues and joints in the body, which occurs any time after death and usually appears in the head, face and neck muscles first.
- Obvious signs of venous pooling in dependent body parts, lividity such as mottled bluish-tinged discoloration of the skin, often accompanied by cold extremities.
- Decapitation.
- Incineration of the torso and/or head.
- Massive crush injury.
- Penetrating injury with evisceration of the heart, and/or brain.
- Gross dismemberment of the trunk.

IV. ~~PROCEDURE~~SPECIAL CONSIDERATIONS

- ~~If the patient does not meet the Determination of Death criteria, appropriate interventions must be initiated.~~

- ~~Resuscitation efforts shall not be terminated en route per Government Code 27491. The patient will be transported to the closest facility where determination of death will be made by hospital staff.~~

- ~~Most victims of electrocution, lightning and drowning should have resuscitative efforts begun and transported to the appropriate Hospital/Trauma Center.~~

- ~~Hypothermic patients should be treated per ICEMA Reference #13030 - Cold Related Emergencies, under Severe Hypothermia.~~

- ~~A DNR report form must be completed, if applicable, refer to ICEMA Reference #12020 - Withholding Resuscitative Measures.~~

- ~~**San Bernardino County Only:**~~

- A copy of the patient care report must be made available for the Coroner. This will be transmitted to them, when posted, if the disposition is marked "Dead on Scene" and the Destination is marked "Coroner, San Bernardino County" on the electronic patient care report (ePCR). ~~If unable to post, a printed copy of the ePCR, O1A or a completed *Coroners Worksheet of Death* must be left at the scene.~~

- The completed ePCR ~~or 01A~~ must be posted ~~or faxed~~ to the Coroner before the end of the shift.

- If unable to post, the use of an approved paper patient care report as a "downtime" form is permitted by ICEMA Reference #2040 - Requirements for Patient Care Reports.

LIMITED ALS (LALS) PROCEDURE

- All terminated LALS resuscitation efforts must have an AED event record attached to the ePCR~~patient care report~~.

- ~~All conversations with the base hospital must be fully documented with the name of the base hospital physician who determined death, times and instructions on the patient care report.~~

ALS PROCEDURE

- All patients in ventricular fibrillation should be resuscitated on scene until ROSC is achieved. If patient remains in VF/VT after 20 minutes of CPR, consult base hospital.~~and transported unless otherwise determined by the base hospital physician/designee.~~

- Severe blunt force trauma, pulseless, without signs of life (palpable pulses and/or spontaneous respirations) and cardiac electrical activity less than 40 bpm or during EMS encounter with the patient meets Determination of Death criteria. All terminated ALS resuscitation efforts must have an ECG attached to the patient care report.

- ~~All conversations with the base hospital must be fully documented with the name of the base hospital physician who determined death, times and instructions on the patient care report.~~

- Consider termination of resuscitation efforts in the prehospital setting if any of the criteria are met in the ICEMA Reference #11070 - Cardiac Arrest - Adult.

~~I~~V. SUSPECTED SUDDEN INFANT DEATH SYNDROME (SIDS) INCIDENT

It is imperative that all EMS field personnel be able to assist the caregiver and local police agencies during a suspected SIDS incident.

PROCEDURE

- Follow individual department/agency policies at all times.

- Ask open-ended questions about incident.

- Explain what you are doing, the procedures you will follow, and the reasons for them.

- If you suspect a SIDS death, explain to the parent/caregiver what SIDS is and, if this is a SIDS related death nothing they did or did not do caused the death.

- Provide the parent/caregiver with the number of the California SIDS Information Line: **1-800-369-SIDS (7437)**

- Provide psychosocial support and explain the emergency treatment and transport of their child.

- Assure the parent/caregiver that your activities are standard procedures for the investigation of all death incidents and that there is no suspicion of wrongdoing.

- Document observations.

VI. REFERENCES

Number	Name
11070	Cardiac Arrest - Adult
12020	End of Life Care and Decisions ~~Withholding Resuscitative Measures~~
13030	Cold Related Emergencies

CARDIAC ARREST - PEDIATRIC
(Less than 15 years of age)

High performance (HP) CPR is an organized approach to significantly improve the chance of survival for patients who suffer an out-of-hospital cardiac arrest (OHCA). Return of spontaneous circulation (ROSC) is resumption of sustained perfusing cardiac activity associated with significant respiratory effort after cardiac arrest. Signs of ROSC include breathing, coughing, patient movement and a palpable pulse, or a measurable blood pressure without the use of an automatic compression device.

The principles for HP CPR include:

- Minimize interruptions of chest compressions.
- Compression rate shall be between of 100 - 120 per minute allowing full chest recoil at a depth of at least one-third (1/3) the anteroposterior diameter of the chest until the age of puberty.
- Avoid compressor fatigue by rotating compressors every two (2) minutes.
- Avoid hyperventilation as it can decrease survival.
- Ventilate at a rate of 12 - 20 per minute. Ventilation rate decreases as patient age increases. Volumes shall be the minimum necessary to cause chest rise.

Advanced airways can be safely delayed in OHCA patients until ROSC is achieved if the airway is effectively managed by BLS Interventions. BVM offers excellent oxygenation and ventilation without disrupting high quality compressions.

Whenever possible, provide family members with the option of being present during the resuscitation of an infant or a child. For any termination of efforts, base hospital contact is required.

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting. Consider the potential causes of arrest for age.

II. BLS INTERVENTIONS

- Assess patient, ~~maintain appropriate airway;~~ begin HP CPR, and maintain appropriate BLS airway measures ~~according to current AHA Guidelines~~.

  - ~~Ventilate at rate of 12 to 20 per minute. Ventilatory rate will decrease as patient age increases. Ventilatory volumes shall be the minimum necessary to cause chest rise.~~

- ~~Compression rate shall be a minimum of 100 per minute.~~

- ~~If suspected narcotic overdose with severely decreased respiratory drive administer Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.~~

- ~~Obtain and assess blood glucose level. If indicated administer Glucose - Oral per ICEMA Reference #7040 - Medication - Standard Orders.~~

- If available, utilize AED for patients one ~~is~~ (1) year of age or older~~, utilize AED~~. To minimize the "hands off" interval before a rhythm analysis/shock, complete chest compressions cycle, without an added pause for ventilations or pulse check just before rhythm analysis.

- If shock is advised, perform HP CPR compressions while AED charging. Remove hands from patient and deliver shock then immediately resume uninterrupted HP CPR for two (2) minutes.

- Do not delay HP CPR for post-shock pulse check or a rhythm analysis.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.

- Initiate HP CPR while applying the AED.

- ~~Follow the instructions from the AED to determine if shock is advised.~~

- Obtain IO/IV access (IO is preferred for under nine (9) years of age).

- ~~Establish King Airway device when resources are available with minimal interruption to CPR per ICEMA Reference #10190 - Procedure - Standard Orders. If unsuccessful, continue with BLS airway management and transport to the nearest receiving hospital.~~

- For continued signs of inadequate tissue perfusion, administer fluid bolus of NS. Reassess after each bolus. May repeat two (2) times for continued signs of inadequate tissue perfusion. ~~In radio communications failure (RCF), may give two (2) additional fluid boluses if indicated.~~

  - 1 day to 8 years: 20 ml/kg NS
  - 9 to 14 years: 300 ml NS

- ~~Obtain blood glucose level, if indicated administer:~~

- ~~Administer Dextrose as per ICEMA Reference #7040 - Medication - Standard Orders.~~
- ~~Reassess blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.~~
- ~~If unable to start an IV, administer Glucagon per ICEMA Reference #7040 - Medication - Standard Orders.~~

IV. ALS INTERVENTIONS

- ~~Perform activities identified in the BLS and LALS Interventions.~~
- Initiate HP CPR and continue appropriate BLS Interventions while applying the cardiac monitor without interruption to chest compressions.
- Determine the cardiac rhythm and defibrillate at 2 j/kg (or manufacturer's recommended equivalent) if indicated. After defibrillation, immediately resume HP CPR. Begin a two (2) minute cycle of HP CPR.
- Obtain IO/IV access (IO is preferred).
- Utilize continuous quantitative waveform capnography, for monitoring of patients airway, the effectiveness of chest compressions and for early identification of ROSC. Document the waveform and the capnography number in mm Hg in the ePCR.
- Continue with BLS airway management ensuring adequate ventilations. BLS airways should be maintained during active CPR.
- Endotracheal intubation is the advanced airway of choice if BLS airway does not provide adequate ventilation. Endotracheal intubation may only be performed on patients who are taller than maximum length of a pediatric emergency measuring tape (Broselow, etc.) or equivalent, measuring from the top of the head to the heel of the foot per ICEMA Reference #10190 - Procedure - Standard Orders.~~If BLS airway cannot be maintained and the need for~~Establish an advanced airway ~~is present, establish endotracheal intubation~~ when recourses are available, with ~~minimal~~ no ~~interruption to~~ HP ~~CPR per ICEMA Reference #10190 - Procedure - Standard Orders for patients who are taller than the maximum length of a pediatric emergency measuring tape (Broselow, etc.) or equivalent measuring from the top of the head to the he~~eal of the foot.~~

  NOTE: Capnography **shall** be used for all cardiac arrest patients.

- Insert NG/OG tube per ICEMA Reference #10190 - Procedure - Standard Orders.~~after advanced airway is established or if not placed with BLS airway.~~

- ~~Continue CPR with compressions at a minimum of 100 per minute without pauses during ventilations. Ventilations should be given at a rate of one (1) breath every six (6) to eight (8) seconds.~~

- ~~Utilize continuous quantitative waveform capnography, to confirm the effectiveness of chest compressions and for identification of ROSC.~~

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- Initial defibrillation is administered at 2 j/kg (or manufacturer's recommended equivalent). Second defibrillation is administered at 4 j/kg. Third and subsequent defibrillation attempts should be administered at 10 j/kg not to exceed the adult dose.

- Perform HP CPR immediately after each defibrillation for two (2) minutes without ~~delaying to~~ assessing the post-defibrillation rhythm.

- Administer Epinephrine~~,~~ per ICEMA Reference #7040 - Medication - Standard Orders every five (5) minutes, without interruption of HP CPR,~~, during each two (2) minute cycle of CPR after each defibrillation~~ unless capnography indicates possible ROSC.

- Reassess rhythm for no more than 10 seconds after each two (2) ~~minute~~ cycles of HP CPR. If VF/VT persists, defibrillate as indicated above.

- After two (2) cycles of HP CPR, consider administering Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders, may repeat.

- If patient remains in pulseless VF/VT after ~~five (5) cycles~~20 minutes of HP CPR, consult base hospital.

Pulseless Electrical Activity/Asystole

- Assess for reversible causes and initiate treatment.

- Continue HP CPR with evaluation of rhythm (no more than 10 seconds) every two (2) minutes.

- Administer initial fluid bolus of 20 ml/kg NS for all ages, may repeat at:

  - 1 day to 8 years: 20 ml/kg NS

  - 9 to 14 years: 300 ml NS

- Administer Epinephrine, per ICEMA Reference #7040 - Medication - Standard Orders every five (5) minutes without interruption of HP CPR.~~, during each two (2) minute cycle of CPR after each rhythm evaluation.~~

~~**Treatment Modalities for Managing Pediatric Cardiac Arrest Patient**~~

~~Whenever possible, provide family members with the option of being present during the resuscitation of an infant or a child. For any termination of efforts, base hospital contact is required.~~

- ~~Insert NG/OG tube to relieve gastric distention if the patient has an advanced or BLS airway per ICEMA Reference #10190 - Procedure - Standard Orders.~~
- ~~For continued signs of inadequate tissue perfusion, administer fluid bolus of NS. Reassess after each bolus. May repeat two (2) times for continued signs of inadequate tissue perfusion. In RCF, may give two (2) additional fluid boluses if indicated.~~
  - ~~1 day to 8 years: 20 ml/kg NS~~
  - ~~9 to 14 years: 300 ml NS~~
- ~~Obtain blood glucose level. If indicated administer:~~
  - ~~Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.~~
  - ~~May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.~~
- ~~For suspected opiate overdose, administer Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.~~

~~If~~ **Stable ROSC** ~~is achieved,~~

- Oobtain a 12-lead ECG, upload and document then transport to the closest receiving hospital.
- Utilize continuous waveform capnography, to identify loss of circulation.
- Obtain blood glucose level. If indicated administer:
  - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
  - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.
- For suspected opiate overdose, administer Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.

- For continued signs of shock and hypotension with SBP of less than 70 mm Hg ~~inadequate tissue perfusion~~ **after** successful resuscitation administer Push Dose Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.

- Base hospital physician may order additional medications or interventions as indicated by patient condition.

V. REFERENCES

Number	**Name**
7040	Medication - Standard Orders
10190	Procedure - Standard Orders

NEWBORN CARE

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Field delivery with or without complications.

II. BLS INTERVENTIONS

- When head is delivered, suction mouth then the nose, and check to see that cord is not around baby's neck.
- Dry infant and provide warm environment. Prevent heat loss (remove wet towel).
- Place baby in supine position at or near the level of the mother's vagina. After pulsation of cord has ceased double clamp cord at approximately seven (7) inches and ten (10) inches from baby and cut between clamps.
- Maintain airway, suction mouth and nose.
- Provide tactile stimulation to facilitate respiratory effort.
- Assess breathing if respirations less than~~<~~ 20 or gasping, provide tactile stimulation and assisted ventilation if indicated.
- Circulation:
  - Heart Rate less than~~<~~ 100 ventilate BVM with 100% oxygen for ~~thirty (~~30~~)~~ seconds and reassess. If heart rate is still less than ~~<~~ 100 /minute but greater than 60, reevaluate BVM and reposition airway.
  - If heart rate is less than 60 bpm after above interventions, begin compressions ~~CPR~~ with ventilations at a 3:1 ratio ~~of compressions to ventilations~~ (approximately 100 compressions and 30 ventilations /minute).
- If central cyanosis is present, utilize supplemental oxygen at 10 to 15 L /minute using oxygen tubing close to infant's nose and reassess. If no improvement is noted after ~~thirty (~~30~~)~~ seconds assist ventilation with BVM.
- Obtain Apgar scoring at one (1) and five (5) minutes. Do not use Apgar to determine need to resuscitate.

APGAR SCORE

SIGN	0	1	2
Heart Rate	Absent	Less than< 100 /minute	More than> 100 /minute
Respirations	Absent	Less than< 20 /irregular	More than >20 /crying
Muscle Tone	Limp	Some Flexion	Active Motion
Reflex Irritability	No Response	Grimace	Cough or Sneeze
Color	Blue or pale	Blue Extremities	Completely Pink

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Obtain vascular access via IV if indicated.
- Obtain blood glucose by heel stick.
  - ➢ If blood glucose less than< 35 mg/dL, administer Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- Obtain vascular access via IV/IO if indicated.
- If BVM is ineffective or tracheal suctioning is required, utilize waveform capnography to assess efficacy of compressions and ventilations. Place orogastric tube.
- Obtain blood glucose by heel stick.
  - ➢ If blood glucose less than< 35 mg/dL, administer Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
- Evaluate airway for hypoxemia and assess body temperature for hypothermia then consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders, if heart rate less than< 60 after one (1) minute.
- Contact base hospital if hypovolemia is suspected. Base hospital may order 10 ml/kg IV NS over five (5) minutes. If unable to contact base hospital and transport time is extended, administer 10 ml/kg IV NS over five (5) minutes, may repeat.

- For persistent hypotension despite adequate ventilation and fluid resuscitation, base hospital may order Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders, every ten (10) minutes. If unable to contact base hospital and transport time is extended, give indicated dosage and contact base hospital as soon as possible.

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
10190	Procedure - Standard Orders